

(FILE 'HOME' ENTERED AT 13:09:50 ON 25 NOV 2008)

FILE 'REGISTRY' ENTERED AT 13:10:05 ON 25 NOV 2008
ACT MCG498C/A

L1 SCR 2043
L2 STR
L3 388 SEA SSS FUL L2 AND L1

L4 STR L2
L5 SCR 1811

FILE 'REGISTRY' ENTERED AT 13:25:40 ON 25 NOV 2008

L6 STR L4
L7 0 SEA SUB=L3 SSS SAM L6
L8 220 SEA ABB=ON PLU=ON L3 AND 2<=S
L9 3 SEA ABB=ON PLU=ON ?SULFONYL?/CNS AND L3
 D SCA
L10 0 SEA ABB=ON PLU=ON ?SULFOXY?/CNS AND L3
L11 STR L6
L12 0 SEA SUB=L3 SSS SAM L11
L13 2 SEA SUB=L3 SSS FUL L11
 D SCA
L14 STR L6

FILE 'REGISTRY' ENTERED AT 13:38:46 ON 25 NOV 2008

L15 0 SEA SUB=L3 SSS SAM L14
 D QUE STAT
L16 STR L14

FILE 'REGISTRY' ENTERED AT 13:53:22 ON 25 NOV 2008

D QUE STAT
L17 STR L16
D QUE STAT
L18 STR L17
D QUE STAT
D QUE STAT L13

FILE 'HCAPLUS' ENTERED AT 14:22:25 ON 25 NOV 2008

SET LINE 250
SET DETAIL OFF
E CONDUCTIN+ALL/CT
SET LINE LOGIN
SET DETAIL LOGIN

SET LINE 250
SET DETAIL OFF
E CONDUCTING POLYMERS+ALL/CT
SET LINE LOGIN
SET DETAIL LOGIN
L19 24518 SEA ABB=ON PLU=ON (CONDUCTING POLYMERS OR "ELECTRIC CONDUCTORS, POLYMERIC")
L20 16219 SEA ABB=ON PLU=ON ELEC? (2W) CONDUCT? (2W) POLYMER?
L21 32934 SEA ABB=ON PLU=ON L19 OR L20

FILE 'HCAPLUS' ENTERED AT 14:25:05 ON 25 NOV 2008
L22 477 SEA ABB=ON PLU=ON L3
L23 224 SEA ABB=ON PLU=ON L22 AND L21
D L23 1-10 KWIC

FILE 'LREGISTRY' ENTERED AT 14:42:37 ON 25 NOV 2008
L24 STR L18

FILE 'REGISTRY' ENTERED AT 14:43:19 ON 25 NOV 2008
L25 0 SEA SUB=L3 SSS SAM L24
D SAV

FILE 'REGISTRY' ENTERED AT 14:47:46 ON 25 NOV 2008
ACT MCG498B/A

L26 7 SEA ABB=ON PLU=ON (103-29-7/B1 OR 135899-67-1/B1 OR 139439-92-2/B1 OR 181815-08-7/B1 OR 188754-53-2/B1 OR 865888-37-5/B1 OR 95-54-5/B1)

L27 2 SEA ABB=ON PLU=ON L26 AND L3
D RN
L28 2 SEA SUB=L3 SSS FUL L24
D SCA

FILE 'HCAPLUS' ENTERED AT 14:49:34 ON 25 NOV 2008
L29 3 SEA ABB=ON PLU=ON L28
L30 33 SEA ABB=ON PLU=ON L22 (L) L21
D QUE STAT L28
D QUE STAT L14
D QUE STAT L16
D QUE STAT L13
D QUE STAT L16

FILE HOME

FILE REGISTRY

Property values tagged with IC are from the ZIC/VINITI data file provided by InfoChem.

STRUCTURE FILE UPDATES: 24 NOV 2008 HIGHEST RN 1075293-66-1
DICTIONARY FILE UPDATES: 24 NOV 2008 HIGHEST RN 1075293-66-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH July 5, 2008.

Please note that search-term pricing does apply when conducting SmartSELECT searches.

REGISTRY includes numerically searchable data for experimental and predicted properties as well as tags indicating availability of experimental property data in the original document. For information on property searching in REGISTRY, refer to:

<http://www.cas.org/support/stngen/stndoc/properties.html>

FILE STNGUIDE
FILE CONTAINS CURRENT INFORMATION.
LAST RELOADED: Nov 21, 2008 (20081121/UP).

FILE HCPLUS

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FILE COVERS 1907 - 25 Nov 2008 VOL 149 ISS 22
FILE LAST UPDATED: 24 Nov 2008 (20081124/ED)

HCPlus now includes complete International Patent Classification (I reclassification data for the third quarter of 2008.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

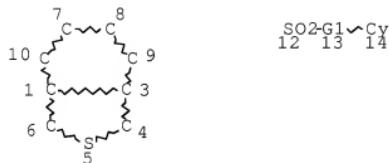
This file contains CAS Registry Numbers for easy and accurate substance identification.

10593498

FILE LREGISTRY
LREGISTRY IS A STATIC LEARNING FILE

NEW CAS INFORMATION USE POLICIES, ENTER HELP USAGETERMS FOR DETAILS.

=> d que stat 114
L14 STR

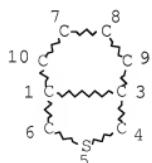


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DEFAULT MLEVEL IS ATOM
GGCAT IS UNS AT 14
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 12

STEREO ATTRIBUTES: NONE

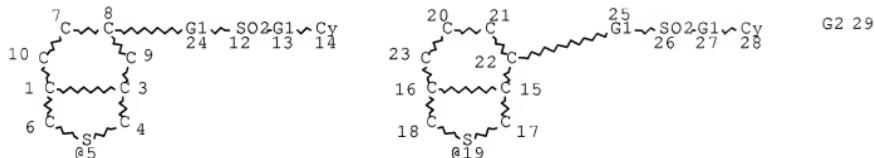
=> d que stat 128
L1 SCR 2043
L2 STR



NODE ATTRIBUTES:
 CONNECT IS E2 R AT 5
 DEFAULT MLEVEL IS ATOM
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 9

STEREO ATTRIBUTES: NONE
 L3 388 SEA FILE=REGISTRY SSS FUL L2 AND L1
 L24 STR



REP G1=(0-5) A
 VAR G2=5/19
 NODE ATTRIBUTES:
 CONNECT IS E2 R AT 5
 CONNECT IS E2 R AT 19
 DEFAULT MLEVEL IS ATOM
 GGCAT IS UNS AT 14
 GGCAT IS UNS AT 28
 DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
 RING(S) ARE ISOLATED OR EMBEDDED
 NUMBER OF NODES IS 27

STEREO ATTRIBUTES: NONE
 L28 2 SEA FILE=REGISTRY SUB=L3 SSS FUL L24

100.0% PROCESSED 388 ITERATIONS 2 ANSWERS
 SEARCH TIME: 00.00.01

=> d 28 bib abs hitstr hitind retable tot

L30 ANSWER 28 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN

AN 1995:498326 HCPLUS Full-text

DN 122:251969

OREF 122:45757a,45760a

TI Antistatic silver halide photographic material

IN Tachibana, Noriki; Morita, Seiya

PA Konishiroku Photo Ind, Japan

SO Jpn. Kokai Tokkyo Koho, 47 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06301154	A	19941028	JP 1993-87395	199304 14
PRAI	JP 1993-87395			19930414	

AB In the title Ag halide photog. material utilizing ≥ 1 antistatic layers containing an electronically conductive polymer, the above polymer is crosslinked with a crosslinking agent selected from an epoxy-, aldehyde-, reactive ethylene-, ethyleneimine-, reactive ester-type material.

IT 91201-85-3 133150-75-1 133184-17-5
162370-00-5

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(electronically conductive polymer;
antistatic photog. film using)

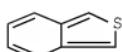
RN 91201-85-3 HCPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6

CMF C8 H6 S

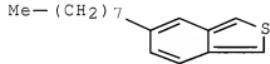


10593498

RN 133150-75-1 HCAPLUS
CN Benzo[c]thiophene, 5-octyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

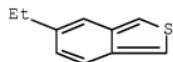
CRN 133150-74-0
CMF C16 H22 S



RN 133184-17-5 HCAPLUS
CN Benzo[c]thiophene, 5-ethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

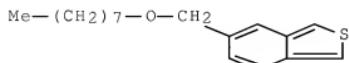
CRN 133184-16-4
CMF C10 H10 S



RN 162370-00-5 HCAPLUS
CN Benzo[c]thiophene, 5-[(octyloxy)methyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 162369-99-5
CMF C17 H24 O S



IC ICM G03C001-89
 ICS G03C001-04; G03C001-30
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 25233-30-1 25233-34-5 25265-93-4 25988-40-3 30604-81-0
 91201-85-3 95831-23-5 110847-38-6 132670-08-7
 132910-05-5 133150-75-1 133184-17-5
 137539-66-3 162369-94-0 162369-96-2 162369-98-4
 162370-00-5 162370-01-6
 RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (electronically conductive polymer;
 antistatic photog. film using)

L30 ANSWER 1 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2008:1102650 HCAPLUS Full-text

DN 149:368039

TI Electrically conductive polymeric elastomer composition for electromagnetic wave shield

IN Hamano, Shokichi; Sato, Tomonori; Tanami, Shiro

PA Kyodo Giken Chemical Co., Ltd., Japan

SO PCT Int. Appl., 31pp.

CODEN: PIXXD2

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2008108099 A1 20080912 WO 2008-JP436

200803

04

W: AE, AG, AL, AM, AO, AT, AU, AZ, BA, BB, BG, BH, BR, BW, BY,
 BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DO, DZ, EC, EE,
 EG, ES, FI, GB, GD, GE, GH, GM, GT, HN, HR, HU, ID, IL, IN,
 IS, JP, KE, KG, KM, KN, KP, KR, KZ, LA, LC, LK, LR, LS, LT,
 LU, LY, MA, MD, ME, MG, MK, MN, MW, MX, MY, MZ, NA, NG, NI,
 NO, NZ, OM, PG, PH, PL, PT, RO, RS, RU, SC, SD, SE, SG, SK,
 SL, SM, SV, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
 VN, ZA, ZM, ZW

RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HR,
 HU, IE, IS, IT, LT, LU, LV, MC, MT, NL, NO, PL, PT, RO, SE,
 SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR,
 NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ,
 TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

PRAI JP 2007-54746

A 20070305

AB Disclosed is a transparent, composite, elec. conductive polymeric elastomer composition which can keep its electromagnetic wave shielding property and has an excellent light transmission property. Specifically disclosed is a transparent elastomer which is intended to be closely arranged on a display on the side of a viewer. The transparent elastomer comprises: an elec. conductive particle complex which comprises multiple elec. conductive metal particles and an elec. conductive organic polymer with which the metal particles are coated, and which causes the metal particles to be crosslinked to thereby form a three-dimensional network structure; and an elec. non-conductive organic polymer which acts as a binder for keeping the three-dimensional structure of the elec. conductive particle complex.

IT 91201-85-3, Polyisothianaphthene

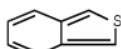
RL: NUU (Other use, unclassified); USES (Uses)
 (composition containing; elec. conductive
 polymeric elastomer composition for electromagnetic wave
 shield)

RN 91201-85-3 HCAPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6
 CMF C8 H6 S



CC 76-1 (Electric Phenomena)

Section cross-reference(s): 38, 56, 73

IT 79-10-7, Acrylic acid, uses 80-62-6, Methyl methacrylate
 103-11-7, 2-Ethylhexylacrylate 140-88-5, Ethyl acrylate
 141-32-2, Butyl acrylate 7440-02-0, Nickel, uses 7440-22-4,
 Silver, uses 7440-50-8, Copper, uses 13463-39-3, Nickel carbonyl
 25233-34-5, Polythiophene 30604-81-0, Polypyrrole
 91201-85-3, Polyisothianaphthene 126213-51-2,
 Polyethylenedioxythiophene
 RL: NUU (Other use, unclassified); USES (Uses)
 (composition containing; elec. conductive
 polymeric elastomer composition for electromagnetic wave
 shield)

RETABLE

Referenced Author Referenced	Year VOL PG	Referenced Work	
(RAU)	(R PY) (R VL) (R PG)	(R WK)	File
<hr/>			
Fuji Photo Film Co Ltd	2004	US 20040177982 A1	HCAPLUS
Fuji Photo Film Co Ltd	2004	JP 2004281941 A	HCAPLUS
Kawamura Institute Of C	2001	JP 2001316595 A	HCAPLUS
Nitto Denko Corp	2006	WO 2006043448 A1	HCAPLUS
Nitto Denko Corp	2006	J P 2006119348 A	HCAPLUS
Sanyo Chemical Industri	2005	JP 2005093609 A	HCAPLUS

L30 ANSWER 2 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2007:914056 HCAPLUS Full-text

DN 148:145040

TI Low bandgap conducting polymers

AU Rasmussen, Seth C.; Pomerantz, Martin

CS Department of Chemistry and Molecular Biology, North Dakota State University, Fargo, ND, USA

SO Handbook of Conducting Polymers (3rd Edition) (2007), Volume 1, 12/1-12/42. Editor(s): Skotheim, Terje A.; Reynolds, John R. Publisher: CRC Press LLC, Boca Raton, Fla.

CODEN: 69JQUE

DT Conference; General Review

LA English

AB A review. Quantum mech. calcns., poly(isothianaphthene) and related fused-ring polymers and their copolymers, polythienothiophene and related systems, donor-acceptor low-bandgap polymers, poly(dithienylethylene) and related systems, poly(thiophene methine) polymers, and other low-bandgap polymers are described.

IT 91201-85-3, Poly(isothianaphthene)

RL: PRP (Properties)

(low-bandgap conducting polymers)

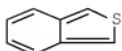
RN 91201-85-3 HCAPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6

CMF C8 H6 S



CC 35-0 (Chemistry of Synthetic High Polymers)
 IT 91201-85-3, Poly(isothianaphthalene)
 RL: PRP (Properties)
 (low-bandgap conducting polymers)

RETABLE

Referenced Author (RAU)	Year (RPY)	VOL (RVL)	PG (RPG)	Referenced Work (RWK)	File
Ajayaghosh, A	2005	138	499	Acc Chem Res	
Ajayaghosh, A	2003	132	181	Chem Soc Rev	HCAPLUS
Ajayaghosh, A	2003	16	117	Int J Plast Technol	HCAPLUS
Ajayaghosh, A	2001	3	2595	Org Lett	HCAPLUS
Akagi, K	1998	316	201	Mol Cryst Liq Cryst	HCAPLUS
Akoudad, S	1998	1	2081	Chem Commun	HCAPLUS
Akoudad, S	1999	101	149	Synth Met	HCAPLUS
Anzenbacher, P	2004	60	11163	Tetrahedron	HCAPLUS
Aota, H	1997	1	527	Chem Lett	HCAPLUS
Aota, H	1998	1	335	Chem Lett	HCAPLUS
Arbizzani, C	1995	40	1871	Electrochim Acta	HCAPLUS
Arbizzani, C	1997	423	23	J Electroanal Chem	HCAPLUS
Arbizzani, C	1997	84	249	Synth Met	HCAPLUS
Bakhshi, A	2001	96	125	Appl Biochem Biotech	HCAPLUS
Bakhshi, A	1997	73	648	Curr Sci	HCAPLUS
Bakhshi, A	2003	119	13159	J Chem Phys	HCAPLUS
Bakhshi, A	1998	94	2823	J Chem Soc Faraday T	HCAPLUS
Bakhshi, A	1998	427	211	J Mol Struct	HCAPLUS
Bakhshi, A	2004	63	715	J Sci Ind Res	HCAPLUS
Bakhshi, A	1997	101	347	Solid State Commun	HCAPLUS
Bakhshi, A	2004	129	335	Solid State Commun	HCAPLUS
Bakhshi, A	1996	79	115	Synth Met	HCAPLUS
Bauerle, P	1992	4	1564	Adv Mater	
Bazzi, H	2002	35	624	Macromolecules	HCAPLUS
Benincori, T	2003	36	5114	Macromolecules	HCAPLUS
Berlin, A	2004	16	3667	Chem Mater	HCAPLUS
Beyer, R	1998	92	25	Synth Met	HCAPLUS
Blanchard, P	1998	163	17107	J Org Chem	HCAPLUS
Bolognesi, A	1988	1	246	J Chem Soc Chem Comm	HCAPLUS
Bolognesi, A	1989	28	1C527	Synth Met	HCAPLUS
Brocks, G	1995	102	12522	J Chem Phys	HCAPLUS
Brocks, G	1996	100	1838	J Phys Chem	HCAPLUS
Brocks, G	2001	119	93	Synth Met	HCAPLUS
Burbridge, S	1994	41	1217	J Mod Opt	HCAPLUS

Burbridge, S	1995 10	139	Mol Cryst Liq Cryst	HCAPLUS
Casado, J	2004 108	7611	J Phys Chem B	HCAPLUS
Catellani, M	1999 101	175	Synth Met	HCAPLUS
Chan, H	1998 23	1167	Prog Polym Sci	HCAPLUS
Chen, M	2004 84	3570	Appl Phys Lett	HCAPLUS
Chen, M	2004 146	233	Synth Met	HCAPLUS
Chen, S	1996 37	519	Polymer	HCAPLUS
Chen, S	1995 67	1983	Pure Appl Chem	HCAPLUS
Chen, S	1995 75	187	Synth Met	HCAPLUS
Chen, W	1995 28	465	Macromolecules	HCAPLUS
Chen, W	2004 37	5959	Macromolecules	HCAPLUS
Chen, W	2002 4	4218	Phys Chem Chem Phys	HCAPLUS
Chen, W	2002 128	215	Synth Met	HCAPLUS
Cheng, H	1995	1451	J Chem Soc Chem Comm	HCAPLUS
Cik, G	2001 118	111	Synth Met	HCAPLUS
Cravino, A	2001 105	46	J Phys Chem B	HCAPLUS
Cravino, A	2002 106	3583	J Phys Chem B	HCAPLUS
Cravino, A	2000 598	BB3.7	Mater Res Soc Symp P	
Cravino, A	2003 137	1435	Synth Met	HCAPLUS
Dietz, F	1994 3	241	Macromol Theory Simu	HCAPLUS
Dmitry, A	2004 126	4752	J Am Chem Soc	
Du Bois, C	2001 119	321	Synth Met	HCAPLUS
Duan, X	2001 116	285	Synth Met	HCAPLUS
D'Ilario, L	1995 30	4273	J Mater Sci	HCAPLUS
Ehrenfreund, E	2004 394	132	Chem Phys Lett	HCAPLUS
Ehrenfreund, E	2005 150	251	Synth Met	HCAPLUS
Eldo, J	2002 14	410	Chem Mater	HCAPLUS
Ferraris, J	1991	1268	J Chem Soc Chem Comm	HCAPLUS
Fu, Y	1997 9	1720	Chem Mater	HCAPLUS
Fusalba, F	2000 12	2581	Chem Mater	HCAPLUS
Gallazzi, M	2002 12	2202	J Mater Chem	HCAPLUS
Gebeyehu, D	2002 125	279	Synth Met	HCAPLUS
Goris, L	2003 138	249	Synth Met	HCAPLUS
Goto, H	1997 84	385	Synth Met	HCAPLUS
Groenendaal, L	2000 12	481	Adv Mater	HCAPLUS
Gunatunga, S	1997 84	973	Synth Met	HCAPLUS
Hagan, A	2001 119	147	Synth Met	HCAPLUS
Ho, H	1996 8	990	Adv Mater	HCAPLUS
Ho, H	1995	2309	J Chem Soc Chem Comm	HCAPLUS
Hong, S	2003 24	1649	Bull Korean Chem Soc	HCAPLUS
Hong, S	2000 12	155	Chem Mater	HCAPLUS
Hong, S	2000 12	495	Chem Mater	HCAPLUS
Hoogmartens, I	1992 51	219	Synth Met	HCAPLUS
Huang, H	1997 48	455	Acta Polym	HCAPLUS
Huang, H	1998 10	2212	Chem Mater	HCAPLUS
Huang, H	1999 11	1541	Chem Mater	HCAPLUS
Huskic, M	1999 99	143	Synth Met	HCAPLUS

Hutchison, G	2005 109	3126	J Phys Chem B	HCAPLUS
Inaoka, S	1999 9	1719	J Mater Chem	HCAPLUS
Inaoka, S	1997 84	193	Synth Met	HCAPLUS
Jayakannan, M	2002 40	2360	J Polym Sci A Polym	HCAPLUS
Jen, K	1986 16	379	Synth Met	HCAPLUS
Jones, C	2002 12	758	J Mater Chem	HCAPLUS
Kalaji, M	1999 101	123	Synth Met	HCAPLUS
Karikomi, M	1995 117	6791	J Am Chem Soc	HCAPLUS
Kastner, J	1995 28	2922	Macromolecules	HCAPLUS
Kastner, J	1995 69	593	Synth Met	HCAPLUS
Kean, C	2001	815	Chem Commun	HCAPLUS
Kenning, D	2002 67	9073	J Org Chem	HCAPLUS
Kenning, D	2003 36	6298	Macromolecules	HCAPLUS
Kenning, D			Unpublished results	
Kertesz, M	1998 39	76	Polym Prepr (Am Chem	HCAPLUS
Kiebooms, R	1996 29	5981	Macromolecules	HCAPLUS
Kiebooms, R	2001 34	7989	Macromolecules	HCAPLUS
Kiebooms, R	1997 84	189	Synth Met	HCAPLUS
Kiebooms, R	1999 101	40	Synth Met	HCAPLUS
Kim, I	2003 44	1163	Polym Prepr (Am Chem	HCAPLUS
King, G	1995 5	447	J Mater Chem	HCAPLUS
Kitamura, C	1996 8	570	Chem Mater	HCAPLUS
Kitamura, C	1994	1585	J Chem Soc Chem Comm	HCAPLUS
Kobayashi, M	1985 82	5717	J Chem Phys	HCAPLUS
Krajcovic, J	1999 105	79	Synth Met	HCAPLUS
Kumar, A	2006 39	2723	Macromolecules	HCAPLUS
Kumar, A	2005 46	969	Polym Prepr (Am Chem	HCAPLUS
Kwon, O	2000 104	7106	J Phys Chem A	HCAPLUS
Lambert, T	1991	752	J Chem Soc Chem Comm	HCAPLUS
Lee, B	2005 17	1792	Adv Mater	HCAPLUS
Lee, B	2002 43	568	Polym Prepr (Am Chem	HCAPLUS
Lee, B	2005 46	1010	Polym Prepr (Am Chem	HCAPLUS
Lee, B	2005 46	860	Polym Prepr (Am Chem	HCAPLUS
Lee, K	2001 34	5746	Macromolecules	HCAPLUS
Lee, Y	2001 13	2234	Chem Mater	HCAPLUS
Lee, Y	2001 119	77	Synth Met	HCAPLUS
Loganathan, K	2003 15	1918	Chem Mater	HCAPLUS
Lorczy, D	1992 4	562	Adv Mater	HCAPLUS
McCullough, R	1998	225	Handbook of conducti	
Meng, H	2003 15	146	Adv Mater	HCAPLUS
Meng, H	2001 34	1810	Macromolecules	HCAPLUS
Mills, C	1999 102	1000	Synth Met	HCAPLUS
Musmanni, S	1993	172	J Chem Soc Chem Comm	HCAPLUS
Nayak, K	1990 23	2237	Macromolecules	HCAPLUS
Neef, C	1999 11	1957	Chem Mater	HCAPLUS
Neugebauer, H	1999 110	12108	J Chem Phys	HCAPLUS
Neugebauer, H	2004 563	153	J Electroanal Chem	HCAPLUS

Neugebauer, H	2003 139	747	Synth Met	HCAPLUS
Ottenburgs, B	1997 89	95	Synth Met	HCAPLUS
Paulussen, H	1997 38	5221	Polymer	HCAPLUS
Paulussen, H	2001 41	3121	Polymer	
Paulussen, H	1997 84	415	Synth Met	HCAPLUS
Perepichka, I	2004 14	1679	J Mater Chem	HCAPLUS
Polec, I	2003 41	1034	J Polym Sci Part A P	HCAPLUS
Pomerantz, M	1998	277	Handbook of conducti	
Pomerantz, M	1992	1672	J Chem Soc Chem Comm	HCAPLUS
Pomerantz, M	2001 34	1817	Macromolecules	HCAPLUS
Pomerantz, M	1993 55	960	Synth Met	HCAPLUS
Pomerantz, M	1997 84	243	Synth Met	HCAPLUS
Quattrochi, C	1993 26	1260	Macromolecules	HCAPLUS
Quattrochi, C	1993 55-57	4399	Synth Met	
Roncalli, J	1997 97	173	Chem Rev	HCAPLUS
Roncalli, J	1994	2249	J Chem Soc Chem Comm	HCAPLUS
Sannicolo, F	1998 10	2167	Chem Mater	HCAPLUS
Schlick, U	1998 92	75	Synth Met	HCAPLUS
Seshadri, V	2004 16	5644	Chem Mater	HCAPLUS
Seshadri, V	2003 19	9479	Langmuir	HCAPLUS
Seshadri, V	2003 88	292	Polym Mater Sci Eng	HCAPLUS
Shaheen, S	2001 121	1583	Synth Met	HCAPLUS
Sonmez, G	2004 16	1905	Adv Mater	HCAPLUS
Sonmez, G	2005 17	897	Adv Mater	HCAPLUS
Sonmez, G	2004 43	1498	Angew Chem Int Ed	HCAPLUS
Sonmez, G	2003 15	4923	Chem Mater	HCAPLUS
Sonmez, G	2005 38	669	Macromolecules	HCAPLUS
Sotzing, G	1996 8	1882	Chem Mater	HCAPLUS
Sotzing, G	1995	703	J Chem Soc Chem Comm	HCAPLUS
Sotzing, G	1998 31	3750	Macromolecules	HCAPLUS
Sotzing, G	2002 35	17281	Macromolecules	HCAPLUS
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Sotzing, G	1997 84	199	Synth Met	HCAPLUS
Staes, E	1999 11	65	Electroanalysis	HCAPLUS
Swann, M	1993 55	281	Synth Met	HCAPLUS
Tachibana, M	2002 106	3549	J Phys Chem B	HCAPLUS
Takimiya, K	2002 75	1795	Bull Chem Soc Jpn	HCAPLUS
Taliani, C	1989 28	C507	Synth Met	HCAPLUS
Tanaka, S	1995 69	599	Synth Met	HCAPLUS
Tanaka, S	1997 84	229	Synth Met	HCAPLUS
Thomas, C	1999 735	367	Semiconducting polym	HCAPLUS
Toussaint, J	1995 69	637	Synth Met	HCAPLUS
Tsuda, A	2002 14	75	Adv Mater	HCAPLUS
van Asselt, R	1996 34	1553	J Polym Sci Part A:	HCAPLUS
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Vangeneugden, D	1998 49	1687	Acta Polym	HCAPLUS
Vangeneugden, D	1999 101	120	Synth Met	HCAPLUS

Verlhac, P	1998 95	1274	J Chim Phys	HCAPLUS
Wang, X	2004 85	5081	Appl Phys Lett	HCAPLUS
Wudl, F	1984 49	3382	J Org Chem	HCAPLUS
Yan, W	2002 13	988	Chin Chem Lett	HCAPLUS
Yan, W	2001 19	499	Chin J Polym Sci	HCAPLUS
Zhang, F	2005 15	745	Adv Funct Mater	HCAPLUS
Zhang, Q	2004 39	6089	J Mater Sci	HCAPLUS
Zhang, Q	2004 146	69	Synth Met	HCAPLUS

L30 ANSWER 3 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:941495 HCAPLUS Full-text

DN 145:344927

TI Polymerizable heteroarylamine compositions for forming electric conductors, and various kinds of electronic devices comprising same conductors

IN Shinohara, Yuji; Terao, Koichi

PA Seiko Epson Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 62pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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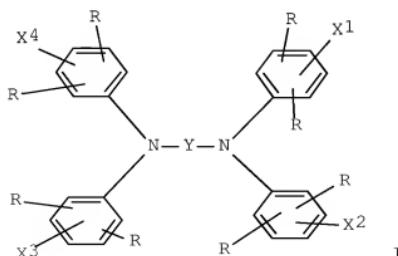
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PI JP 2006241267	A	20060914	JP 2005-57129	
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200503
02

PRAI JP 2005-57129 20050302

GI



AB The compns. contain (meth)acryloyloxyalkyl-bearing heteroarylamines I [$X_1-4 = H_2C:C(Z)CO_2(CH_2)_n$; Z = H, Me; n = 2-8; R = H, Me, Et; Y = group bearing (substituted) heterocycle], and urethane (meth)acrylate crosslinking agents. Elec. conductors formed by polymerizing the above heteroarylamines (with the crosslinking agents) are also claimed. Also claimed are various kinds of electronic devices comprising elec. (semi)conductors made from the compns., including electroluminescent devices, photoelec. conversion devices, elec. switches, and thin-film transistors. The (semi)conductors show good carrier-transport performance.

IT 909421-16-5P 909421-19-8P 909421-20-1P
909421-21-2P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(elec. conductor; polymerizable

(meth)acryloyloxyalkyl-containing heteroarylamine composition for forming

elec. conductor of electronic device)

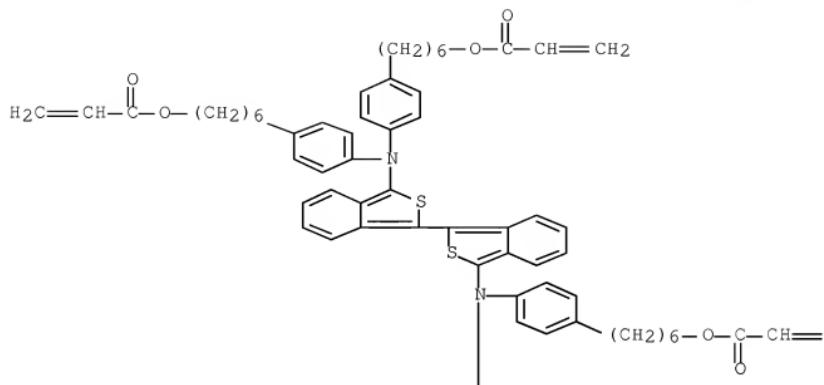
RN 909421-16-5 HCPLUS

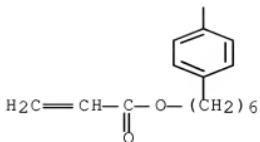
CN 2-Propenoic acid, 1,1'-bibenzo[c]thiophene-3,3'-diylbis[nitrilobis(4,1-phenylene-6,1-hexanediyil)] ester, polymer with α -[[[methyl-3-[[[2-[{1-oxo-2-propenyl}oxy]ethoxy]carbonyl]amino]phenyl]amino]carbonyl]- ω -[[[methyl-3-[[[2-[{1-oxo-2-propenyl}oxy]ethoxy]carbonyl]amino]phenyl]amino]carbonyl]oxy]poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

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CRN 878028-09-2

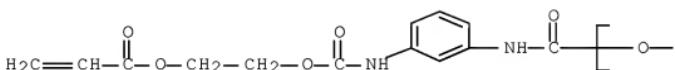
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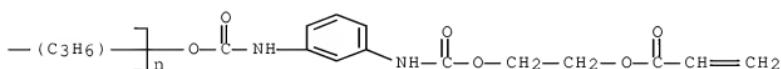


CM 2

CRN 61420-45-9
CMF (C3 H6 O)n C28 H30 N4 O11
CCI IDS, PMS



2 (D1-Me)



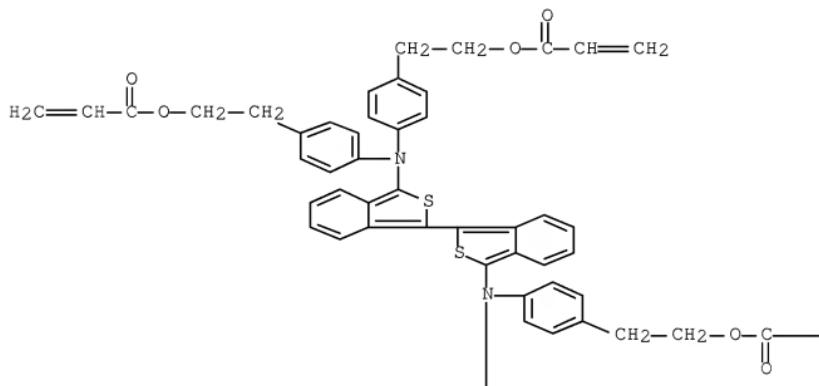
RN 909421-19-8 HCAPLUS
CN 2-Propenoic acid, 1,1'-bibenzo[c]thiophene-3,3'-diylbis[nitrilobis(4,1-phenylene-2,1-ethanediyl)] ester, polymer with α -{[methyl-3-[[2-[(1-oxo-2-propenyl)oxy]ethoxy]carbonyl]amino]phenyl}amino]carbonyl]- ω -

[[[[methyl-3-[[[2-[(1-oxo-2-propenyl)oxy]ethoxy]carbonyl]amino]phenyl]amino]carbonyl]oxy]poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

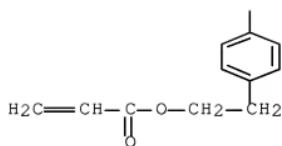
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CRN 878028-10-5
CMF C60 H52 N2 O8 S2

PAGE 1-A



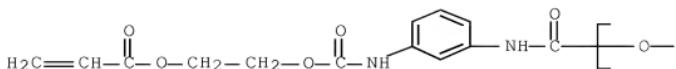
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CM 2

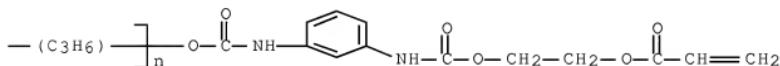
CRN 61420-45-9
CMF (C₃ H₆ O)_n C₂₈ H₃₀ N₄ O₁₁
CCI IDS, PMS

PAGE 1-A



2 (D1-Me)

PAGE 1-B



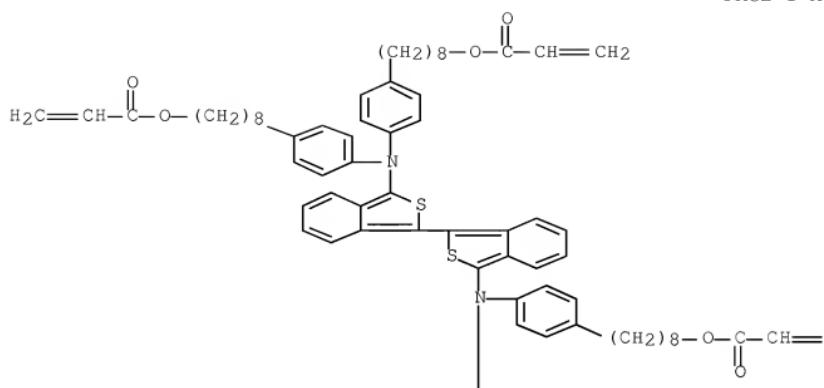
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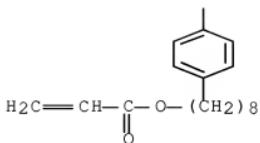
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CRN 878028-11-6

CMF C84 H100 N2 O8 S2

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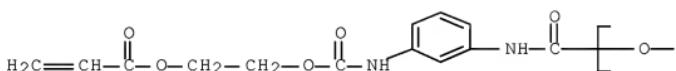
PAGE 2-A



CM 2

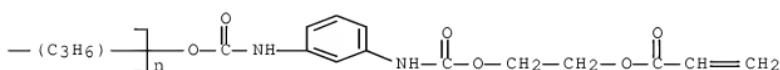
CRN 61420-45-9
 CMF (C₃ H₆ O)_n C₂₈ H₃₀ N₄ O₁₁
 CCI IDS, PMS

PAGE 1-A



2 (D1-Me)

PAGE 1-B



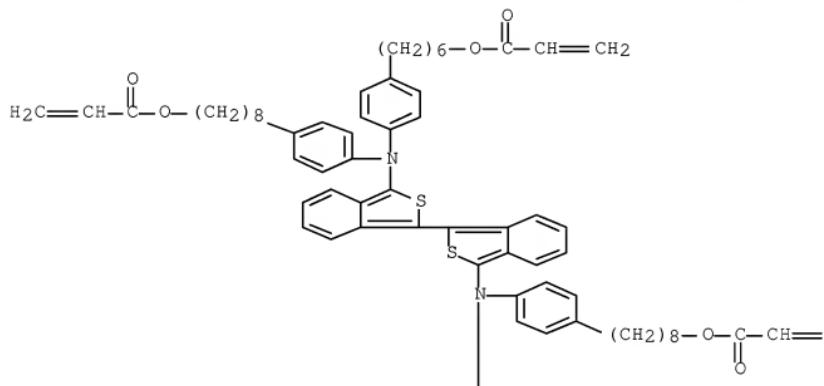
RN 909421-21-2 HCAPLUS
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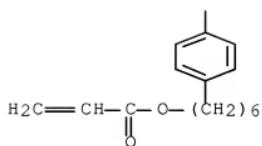
[[[[methyl-3-[[[2-[(1-oxo-2-propenyl)oxy]ethoxy]carbonyl]amino]phenyl]amino]carbonyl]oxy]poly[oxy(methyl-1,2-ethanediyl)] (9CI) (CA INDEX NAME)

CM 1

CRN 878028-12-7
CMF C80 H92 N2 O8 S2

PAGE 1-A

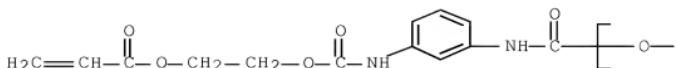


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CM 2

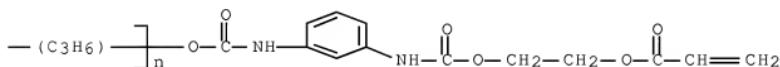
CRN 61420-45-9
CMF $(\text{C}_3 \text{ H}_6 \text{ O})_n$ C28 H30 N4 O11
CCI IDS, PMS

PAGE 1-A



2 (D1-Me)

PAGE 1-B



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 27, 28, 38, 74, 76

IT 909421-09-6P 909421-10-9P 909421-11-0P 909421-12-1P

909421-13-2P 909421-14-3P 909421-15-4P 909421-16-5P

909421-17-6P 909421-18-7P 909421-19-8P

909421-20-1P 909421-21-2P 909421-22-3P

909421-23-4P 909421-24-5P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(elec. conductor; polymerizable

(meth)acryloyloxyalkyl-containing heteroarylamine composition for forming

elec. conductor of electronic device)

L30 ANSWER 4 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:941451 HCAPLUS Full-text

DN 145:344926

TI Polymerizable heteroarylamine compositions for forming electric conductors, and various kinds of electronic devices comprising same conductors

IN Shinohara, Yuji; Terao, Koichi

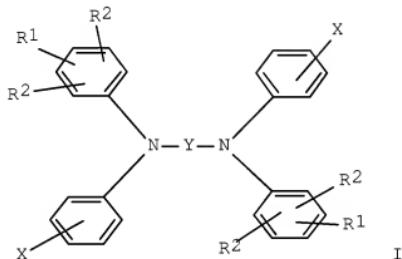
PA Seiko Epson Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 58pp.

CODEN: JKXXAF

DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006241266	A	20060914	JP 2005-57127	20050302
PRAI	JP 2005-57127		20050302		
GI					



AB The compns. contain (meth)acryloyloxyalkyl-bearing heteroarylamines I [R1 = straight-chain C2-8 alkyl; R2 = H, Me, Et; X = H2C:C(Z)CO2(CH2)n; Z = H, Me; n = 2-8; Z = H, Me; Y = group bearing (substituted) heterocycle], and epoxy (meth)acrylate crosslinking agents. Elec. conductors formed by polymerizing the above heteroarylamines (with the crosslinking agents) are also claimed. Also claimed are various kinds of electronic devices comprising elec. (semi)conductors made from the compns., including electroluminescent devices, photoelec. conversion devices, elec. switches, and thin-film transistors. The (semi)conductors show good carrier-transport performance.

IT 909529-11-9P 909529-14-2P 909529-15-3P
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(elec. conductor; polymerizable
 (meth)acryloyloxyalkyl-containing heteroarylamine composition for
 forming

elec. conductor of electronic device)

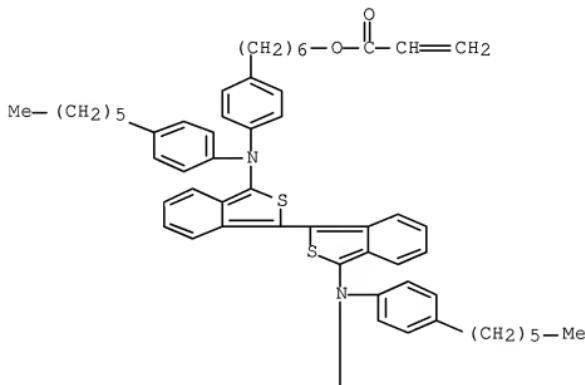
RN 909529-11-9 HCAPLUS

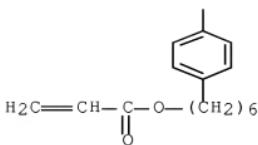
CN 2=Propenoic acid, [1,1'-bibenzo[c]thiophene]-3,3'-diylbis[[(4-hexylphenyl)imino]-4,1-phenylene-6,1-hexanediyil] ester, polymer with (chloromethyl)oxirane polymer with
 4,4'-(1-methylethylidene)bis[phenol] di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 903577-16-2
 CMF C70 H80 N2 O4 S2

PAGE 1-A





CM 2

CRN 53814-24-7

CMF (C₁₅ H₁₆ O₂ . C₃ H₅ Cl O)x . 2 C₃ H₄ O₂

CM 3

CRN 79-10-7

CMF C₃ H₄ O₂

CM 4

CRN 25068-38-6

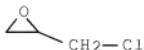
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CCI PMS

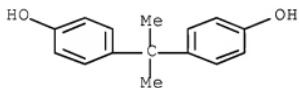
CM 5

CRN 106-89-8

CMF C₃ H₅ Cl O



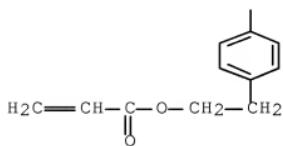
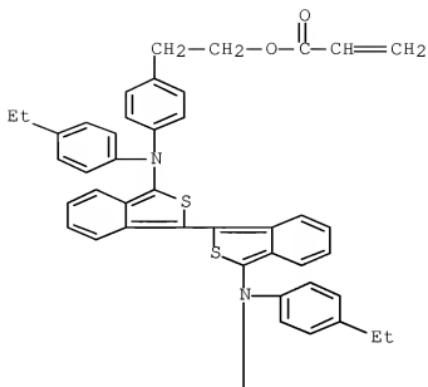
CM 6

CRN 80-05-7
CMF C15 H16 O2

RN 909529-14-2 HCPLUS
 CN 2-Propenoic acid, [1,1'-bibenzo[c]thiophene]-3,3'-diylbis[[(4-ethylphenyl)imino]-4,1-phenylene-2,1-ethanediyl] ester, polymer with (chloromethyl)oxirane polymer with
 4,4'-(1-methylethylidene)bis[phenol] di-2-propenoate (9CI) (CA INDEX NAME)

CM 1

CRN 903577-17-3
CMF C54 H48 N2 O4 S2



CM 2

CRN 53814-24-7

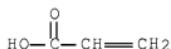
CMF (C15 H16 O2 . C3 H5 Cl O)x . 2 C3 H4 O2

CM 3

CRN 79-10-7

10593498

CMF C3 H4 O2



CM 4

CRN 25068-38-6
CMF (C15 H16 O2 . C3 H5 Cl O)x
CCI PMS

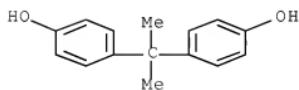
CM 5

CRN 106-89-8
CMF C3 H5 Cl O



CM 6

CRN 80-05-7
CMF C15 H16 O2



RN 909529-15-3 HCAPLUS

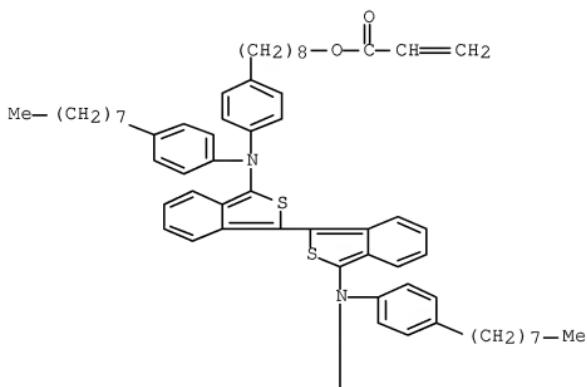
CN 2-Propenoic acid, [1,1'-bibenzo[c]thiophene]-3,3'-diylbis[[(4-

octylphenyl)imino]-4,1-phenylene-8,1-octanediyil] ester, polymer with
 (chloromethyl)oxirane polymer with
 4,4'-(1-methylethylidene)bis[phenol] di-2-propenoate (9CI) (CA
 INDEX NAME)

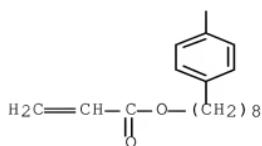
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CRN 903577-18-4
 CMF C78 H96 N2 O4 S2

PAGE 1-A



PAGE 2-A

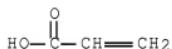


CM 2

CRN 53814-24-7
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CM 3

CRN 79-10-7
 CMF C3 H4 O2

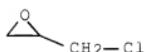


CM 4

CRN 25068-38-6
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 CCI PMS

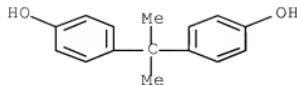
CM 5

CRN 106-89-8
 CMF C3 H5 Cl O



CM 6

CRN 80-05-7
 CMF C15 H16 O2



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 2, 27, 38, 74, 76

IT 909529-05-1P 909529-06-2P 909529-07-3P 909529-08-4P

909529-09-5P 909529-10-8P 909529-11-9P 909529-12-0P

909529-13-1P 909529-14-2P 909529-15-3P

909529-16-4P 909529-17-5P 909529-18-6P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(elec. conductor; polymerizable

(meth)acryloyloxyalkyl-containing heteroarylamine composition for forming

elec. conductor of electronic device)

L30 ANSWER 5 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:941389 HCAPLUS Full-text

DN 145:344925

TI Polymerizable heteroarylamine compositions for forming electric conductors, and various kinds of electronic devices comprising same conductors

IN Terao, Koichi; Shinohara, Yuji

PA Seiko Epson Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 70pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

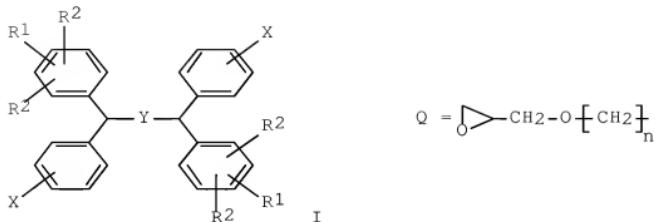
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 2006241295	A	20060914	JP 2005-58522	200503
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PRAI JP 2005-58522 20050303

GI



AB The compns. contain glycidyloxyalkyl-bearing heteroarylaminies I [R1 = straight-chain C2-8 alkyl; R2 = H, Me, Et; X = O; n = 2-8; Y = group bearing (substituted) heterocycle], and epoxy crosslinking agents. Elec. conductors formed by polymerizing the above heteroarylaminies (with the crosslinking agents) are also claimed. Also claimed are various kinds of electronic devices comprising elec. (semi)conductors made from the compns., including electroluminescent devices, photoelec. conversion devices, elec. switches, and thin-film transistors. The (semi)conductors show good carrier-transport performance.

IT 909701-10-6P 909701-14-0P 909701-15-1P
909701-18-4P 909701-19-5P 909701-20-8P
909701-21-3P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(elec. conductor; polymerizable glycidyloxyalkyl-containing heteroarylamine composition for forming elec.

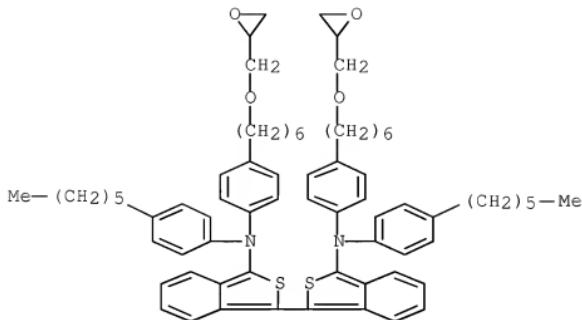
conductor of electronic device)

RN 909701-10-6 HCPLUS

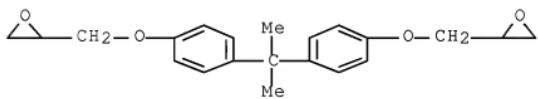
CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
N,N'-bis(4-hexylphenyl)-N,N'-bis[4-[6-(oxiranylmethoxy)hexyl]phenyl]-
, polymer with 2,2'-(1-methylethylidene)bis(4,1-
phenyleneoxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

CM 1

CRN 900812-56-8
CMF C70 H84 N2 O4 S2



CM 2

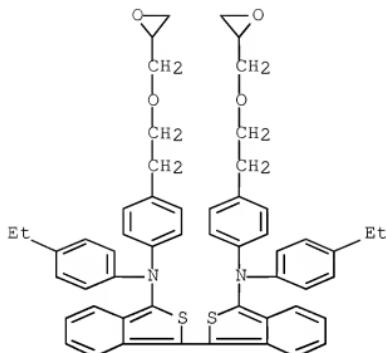
CRN 1675-54-3
CMF C21 H24 O4

RN 909701-14-0 HCAPLUS

CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
N,N'-bis(4-ethylphenyl)-N,N'-bis[4-[2-(oxiranylmethoxy)ethyl]phenyl]-
, polymer with 2,2'-(1-methylethylidene)bis(4,1-
phenyleneoxymethylene)]bis[oxirane] (9CI) (CA INDEX NAME)

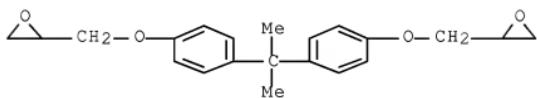
CM 1

CRN 900812-57-9
CMF C54 H52 N2 O4 S2



CM 2

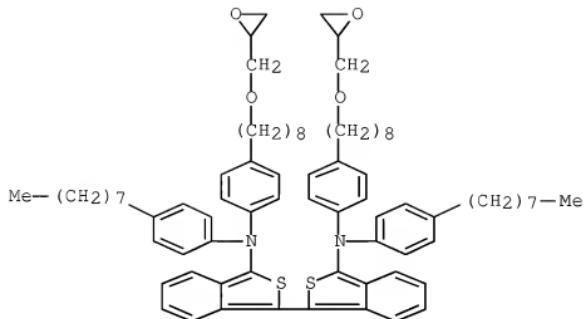
CRN 1675-54-3
 CMF C21 H24 O4



RN 909701-15-1 HCPLUS
 CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
 N,N'-bis(4-octylphenyl)-N,N'-bis[4-[8-(oxiranylmethoxy)octyl]phenyl]-
 , polymer with 2,2'-(1-methylethylenedibis(4,1-
 phenyleneoxymethylene))bis[oxirane] (9CI) (CA INDEX NAME)

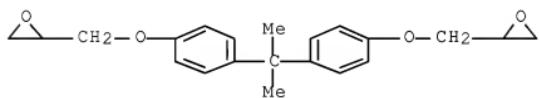
CM 1

CRN 900812-58-0
 CMF C78 H100 N2 O4 S2



CM 2

CRN 1675-54-3
 CMF C21 H24 O4

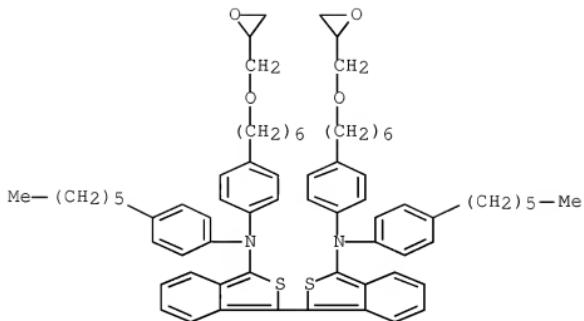


RN 909701-18-4 HCAPLUS

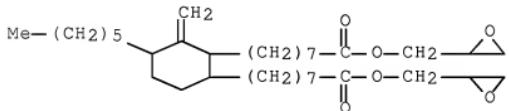
CN 1,2-Cyclohexanediocanoic acid, 4-hexyl-3-methylene-,
 bis(oxiranylmethyl) ester, polymer with
N,N'-bis(4-hexylphenyl)-*N,N'*-bis[4-[6-
 (oxiranylmethoxy)hexyl]phenyl][1,1'-bibenzo[c]thiophene]-3,3'-
 diamine (9CI) (CA INDEX NAME)

CM 1

CRN 900812-56-8
 CMF C70 H84 N2 O4 S2



CM 2

CRN 887651-88-9
CMF C35 H60 O6

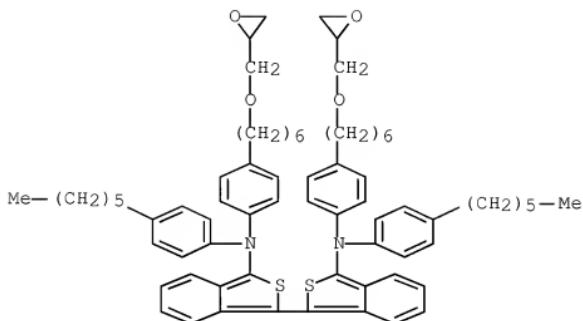
RN 909701-19-5 HCPLUS
 CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
N,N'-bis(4-hexylphenyl)-*N,N'*-bis[4-[6-(oxiranylmethoxy)hexyl]phenyl]-
_, polymer with 3,3'-(1,3-dioxane-2,5-diyl)bis[7-
 oxabicyclo[4.1.0]heptane] (9CI) (CA INDEX NAME)

CM 1

CRN 900812-56-8

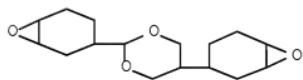
10593498

CMF C70 H84 N2 O4 S2



CM 2

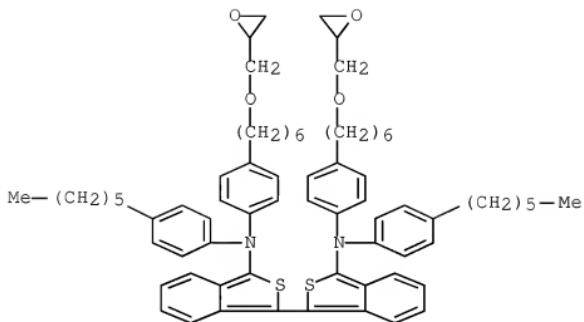
CRN 39507-71-6
CMF C16 H24 O4



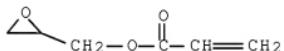
RN 909701-20-8 HCPLUS
CN 2-Propenoic acid, oxiranylmethyl ester, polymer with
N,N'-bis(4-hexylphenyl)-N,N'-bis[4-[6-
(oxiranylmethoxy)hexyl]phenyl][1,1'-bibenzo[c]thiophene]-3,3'-
diamine (9CI) (CA INDEX NAME)

CM 1

CRN 900812-56-8
CMF C70 H84 N2 O4 S2



CM 2

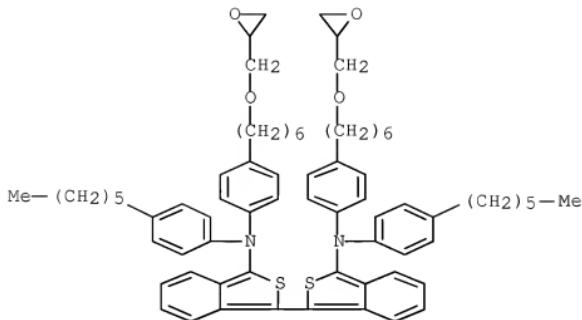
CRN 106-90-1
CMF C₆ H₈ O₃

RN 909701-21-9 HCAPLUS

CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
N,N'-bis(4-hexylphenyl)-N,N'-bis[4-[6-(oxiranylmethoxy)hexyl]phenyl]-
, polymer with N,N'-(methylenedi-4,1-phenylene)bis[N-
(oxiranylmethyl)oxiranemethanamine] (9CI) (CA INDEX NAME)

CM 1

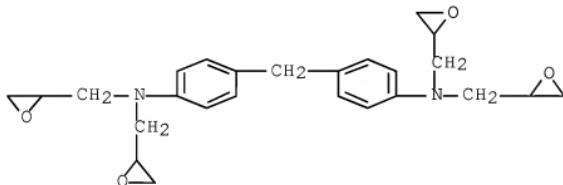
CRN 900812-56-8
CMF C₇₀ H₈₄ N₂ O₄ S₂



CM 2

CRN 28768-32-3

CMF C25 H30 N2 O4



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

IT Section cross-reference(s): 27, 28, 38, 74, 76
 9016-83-5DP, cresol-formaldehyde copolymer glycidyl ethers, reaction products with heteroarylamine derivs. 878200-06-7DP, polymers with glycidyl-bearing poly(arylenealkenylenes) 878200-06-7DP, reaction products with epoxy derivs. 887651-96-9DP, reaction products with heteroarylamine derivs. 900812-55-7DP, polymers with

glycidyl-bearing poly(arylenealkenylenes) 900812-55-7DP, reaction products with epoxy derivs. 900812-56-8DP, reaction products with epoxy derivs, 909701-04-8P 909701-05-9P 909701-06-0P
 909701-07-1P 909701-08-2P 909701-09-3P 909701-10-6P
 909701-11-7P 909701-12-8P 909701-13-9P 909701-14-0P
 909701-15-1P 909701-16-2P 909701-17-3P
 909701-18-4P 909701-19-5P 909701-20-8P
 909701-21-9P 909701-22-0P 909701-23-1P 909701-24-2P
 909701-25-3P 909701-26-4P 909701-27-5P 909701-28-6P
 909701-30-0P 909701-31-1P 909701-32-2P 909701-33-3P
 909701-34-4P 909701-35-5P 909701-36-6P 909701-37-7P
 909701-38-8P 909701-39-9P 909701-40-2P 909701-41-3P
 909701-42-4P 909701-43-5P 909701-44-6P 909701-45-7P
 909701-46-8P 909701-47-9P 909701-48-0P 909705-48-2P
 909705-49-3P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(elec. conductor; polymerizable glycidyloxyalkyl-containing heteroarylamine composition for forming elec.
 conductor of electronic device)

L30 ANSWER 6 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2006:941208 HCAPLUS Full-text

DN 145:324605

TI Polymerizable heteroarylamine compositions for forming electric conductors, and various kinds of electronic devices comprising same conductors

IN Shinohara, Takashi; Terao, Koichi; Shinohara, Yuji

PA Seiko Epson Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 65pp.
 CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

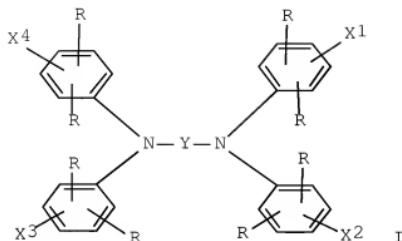
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 2006241213 A 20060914 JP 2005-55435

200503
 01

PRAI JP 2005-55435 20050301

GI



AB The compns. contain vinyl-bearing heteroarylamines I [X1-4 = H₂C:C(Z)-p-C₆H₄(CH₂)mO(CH₂)n; Z = H, Me, Et; m = 0-3; n = 3-8; R = H, Me, Et; Y = group bearing (substituted) heterocycle], and vinyl-bearing crosslinking agents. Elec. conductors formed by polymerizing the above heteroarylamines (with vinyl comonomers) are also claimed. Also claimed are various kinds of electronic devices comprising elec. (semi)conductors made from the compns., including electroluminescent devices, photoelec. conversion devices, elec. switches, and thin-film transistors. The (semi)conductors show good carrier-transport performance.

IT 909422-62-4P 909422-64-6P 909422-66-8P
909422-68-0P 909422-70-4P 909422-72-6P
909422-73-7P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(elec. conductor; polymerizable
vinyl-containing heteroarylamine composition for forming elec.
conductor
of electronic device)

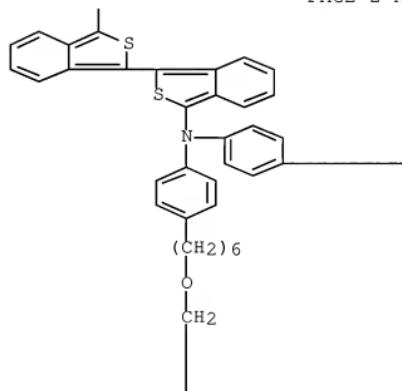
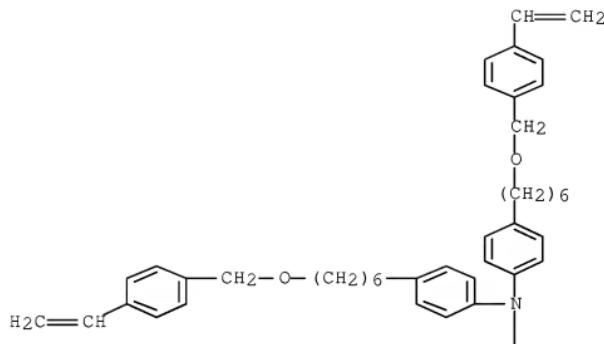
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CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
N,N,N',N'-tetrakis[4-[6-[(4-ethenylphenyl)methoxy]hexyl]phenyl]-,
polymer with α -(1-oxo-2-propenyl)- ω -[(1-oxo-2-
propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

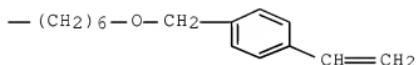
CM 1

CRN 884540-95-8

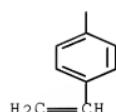
CMF C100 H108 N2 O4 S2



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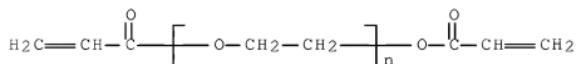


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CM 2

CRN 26570-48-9
 CMF (C₂H₄O)_nC₆H₆O₃
 CCI PMS



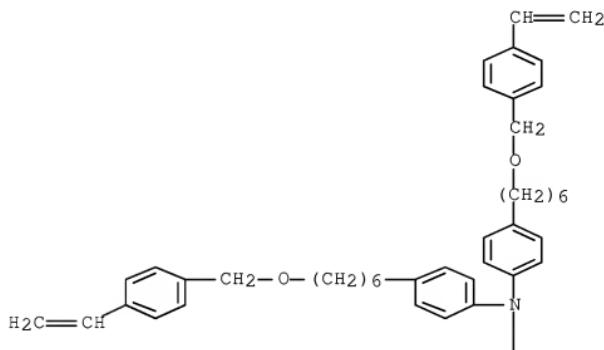
RN 909422-64-6 HCAPLUS

CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
N,N,N',N'-tetrakis[4-[6-[(4-ethenylphenyl)methoxy]hexyl]phenyl]-,
polymer with diethenylbenzene (9CI) (CA INDEX NAME)

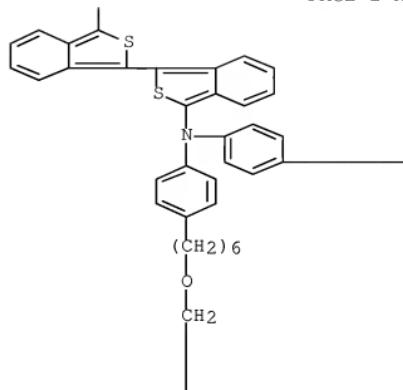
CM 1

CRN 884540-95-8
CMF C100 H108 N2 O4 S2

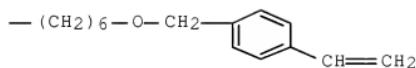
PAGE 1-A

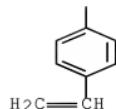


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CM 2

CRN 1321-74-0
 CMF C10 H10
 CCI IDS



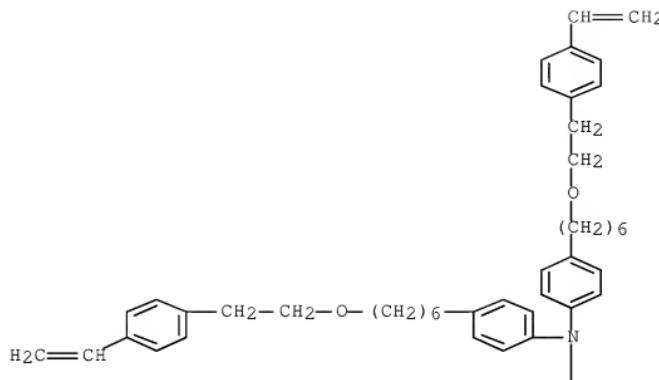
² [D1—CH=CH₂]

RN 909422-66-8 HCPLUS
 CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
 N,N,N',N'-tetrakis[4-[6-[2-(4-ethenylphenyl)ethoxy]hexyl]phenyl]-,
 polymer with α -(1-oxo-2-propenyl)- ω -[(1-oxo-2-
 propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

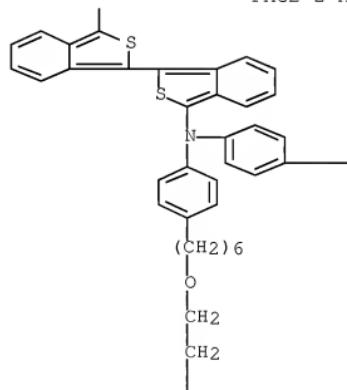
CM 1

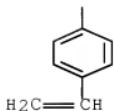
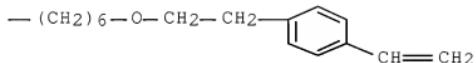
CRN 884540-96-9
 CMF C104 H116 N2 O4 S2

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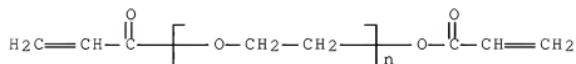
PAGE 2-A





CM 2

CRN 26570-48-9
 CMF $(\text{C}_2\text{H}_4\text{O})_n \text{C}_6\text{H}_6\text{O}_3$
 CCI PMS



RN 909422-68-0 HCPLUS
 CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
 $\text{N},\text{N},\text{N}',\text{N}'\text{-tetrakis}[4\text{-[3-[(4\text{-ethenylphenyl)methoxy]propyl]phenyl}]$ -,

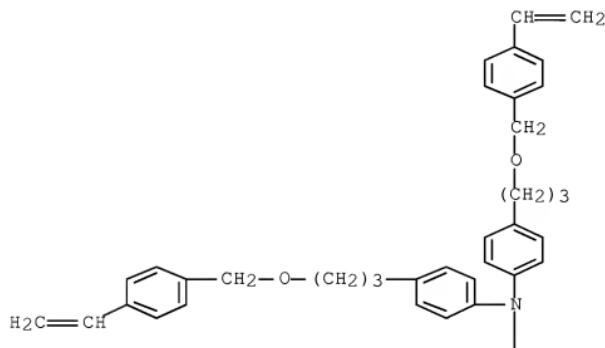
polymer with α -(1-oxo-2-propenyl)- ω -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

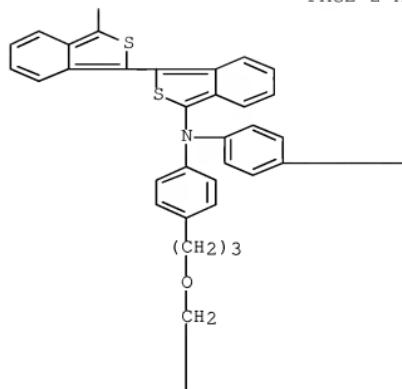
CRN 884540-97-0

CMF C88 H84 N2 O4 S2

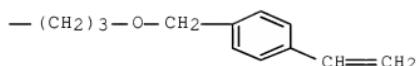
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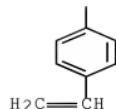


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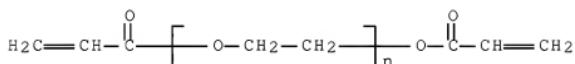
PAGE 2-B





CM 2

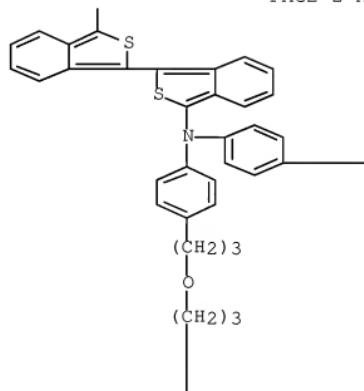
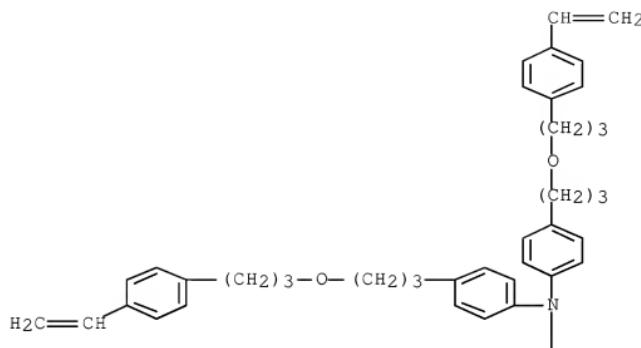
CRN 26570-48-9
 CMF (C₂ H₄ O)_n C₆ H₆ O₃
 CCI PMS

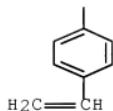
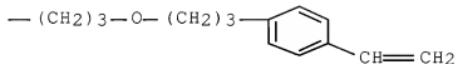


RN 909422-70-4 HCAPLUS
 CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
 N,N,N',N'-tetrakis[4-[3-[3-(4-ethenylphenyl)propoxy]propyl]phenyl]-,
 polymer with α -(1-oxo-2-propenyl)- ω -[(1-oxo-2-
 propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

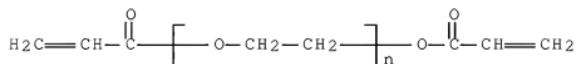
CRN 884540-98-1
 CMF C₉H₁₀ N₂ O₄ S₂





CM 2

CRN 26570-48-9
 CMF $(\text{C}_2\text{ H}_4\text{ O})_n\text{ C}_6\text{ H}_6\text{ O}_3$
 CCI PMS



RN 909422-72-6 HCAPLUS
 CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
 $\text{N},\text{N},\text{N}',\text{N}'\text{-tetrakis[4-[8-[(4-ethenylphenyl)methoxy]octyl]phenyl]}-$,

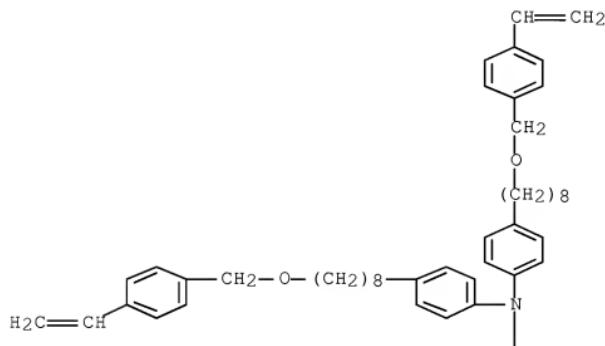
polymer with α -(1-oxo-2-propenyl)- ω -[(1-oxo-2-propenyl)oxy]poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

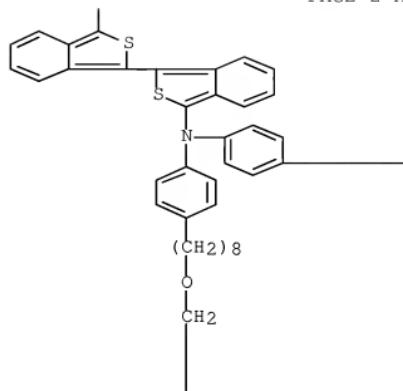
CRN 884540-99-2

CMF C108 H124 N2 O4 S2

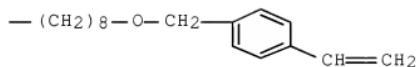
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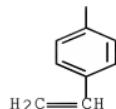


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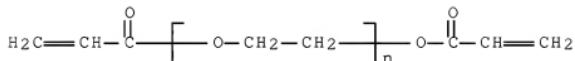
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CM 2

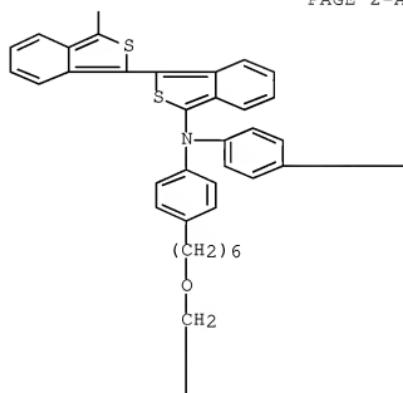
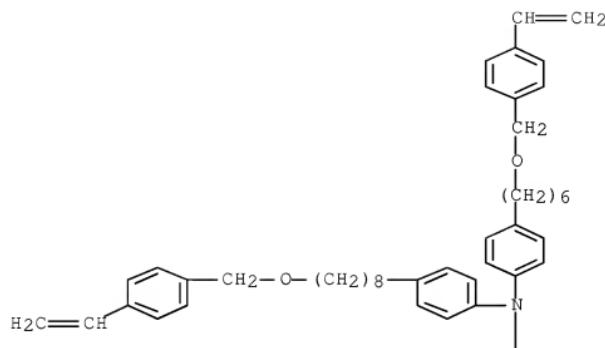
CRN 26570-48-9
 CMF (C₂ H₄ O)_n C₆ H₆ O₃
 CCI PMS

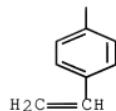
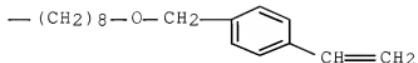


RN 909422-73-7 HCAPLUS
 CN [1,1'-Bibenzo[c]thiophene]-3,3'-diamine,
 N,N'-bis[4-[6-[(4-ethenylphenyl)methoxy]hexyl]phenyl]-N,N'-bis[4-[8-
 [(4-ethenylphenyl)methoxy]octyl]phenyl]-, polymer with
 α-(1-oxo-2-propenyl)-ω-[(1-oxo-2-propenyl)oxy]poly(oxy-
 1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

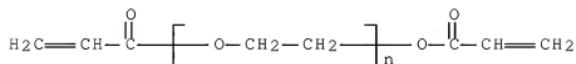
CRN 884541-00-8
 CMF C104 H116 N2 O4 S2





CM 2

CRN 26570-48-9
 CMF (C₂H₄O)_n C₆H₆ O₃
 CCI PMS



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
 Section cross-reference(s): 27, 28, 38, 74, 76

IT 909422-38-4P 909422-41-9P 909422-43-1P 909422-45-3P
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 909422-62-4P 909422-64-6P 909422-66-3P
 909422-68-0P 909422-70-4P 909422-72-6P
 909422-73-7P 909422-75-9P 909422-77-1P 909422-79-3P
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM
 (Technical or engineered material use); PREP (Preparation); USES
 (Uses)
 (elec. conductor; polymerizable
 vinyl-containing heteroarylamine composition for forming elec.
 conductor
 of electronic device)

L30 ANSWER 7 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN

AN 2006:792922 HCPLUS Full-text

DN 145:239247

TI Electrically conductive conjugated polymer fiber, preparation and
 use thereof

IN Mather, Patrick T.; Sotzing, Gregory A.

PA University of Connecticut, USA

SO PCT Int. Appl., 73pp.
 CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI WO 2006084088	A1	20060810	WO 2006-US3764		200601
					31
W:	AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KM, KN, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, LY, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NG, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, LV, MC, NL, PL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG, BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
US 20070089845	A1	20070426	US 2006-343552		200601
					31

PRAI US 2005-648588P P 20050131
 AB Described are conjugated polymer fibers prepared by the method comprising electrospinning a solution of intrinsically conductive polymer, intrinsically conductive polymer precursor, or a combination thereof to form a fiber; and crosslinking the intrinsically conductive polymer, intrinsically conductive polymer precursor, or a combination thereof. The conjugated polymer fibers, which can be nanofibers, may be formed into structures in the form of a nonwoven mat or a mat comprising aligned conjugated polymer fibers, or formed into an article such as an electrochromic window or display device. A method of preparing a micropattern of conjugated polymer fiber is further disclosed.

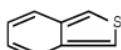
IT 91201-85-3, Poly(isothianaphthene)
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (fibers; elec. conductive conjugated polymer electrospun nanofibers for elec. devices)

RN 91201-85-3 HCAPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6
 CMF C8 H6 S



CC 76-2 (Electric Phenomena)

IT 25038-69-1, Poly(phenylacetylene) 25067-58-7, Polyacetylene
 25086-73-1, Poly(benzofuran) 25233-30-1, Polyaniline 25233-34-5,
 Polythiophene 26009-24-5, Poly(p-phenylenevinylene) 30281-16-4
 30604-81-0, Polypyrrole 51555-21-6, Polycarbazole 82451-55-6,
 Poly(indole) 82451-56-7, Poly(azulene) 87431-36-5,
 Poly(dibenzothiophene) 88995-53-3, trans-1,2-Di(2-thienyl)ethylene
 homopolymer 91201-85-3, Poly(isothianaphthene)
 94479-77-3, Poly(thieno[3,2-b]thiophene) 95270-88-5, Polyfluorene
 98507-51-8, Poly(dithieno[3,2-b:2',3'-d]thiophene) 98845-54-6,
 Poly(4H-thieno[3,2-b]pyrrole) 102250-99-7, Polydibenzofuran
 111519-23-4, Poly(1,4-dihydro-pyrrolo[3,2-b]pyrrole) 113151-41-0,
 trans-1,2-Di(2-furanyl)ethylene homopolymer 120496-10-8,

Poly(1,7-dihydro-thieno[3,2-b:4,5-b']dipyrrole) 125541-34-6,
 Poly(2',3'-pyrazinothiophene) 126213-51-2,
 Poly(3,4-ethylenedioxythiophene) 130777-75-2,
 Poly(thieno[3,4-b]pyridine) 155861-78-2,
 Poly(3,4-propylenedioxythiophene) 157312-38-4, Poly(2,2'-biindole)
 158962-93-7, Poly(3,4-ethylenedithiathiophene) 162899-00-5,
 Poly(1,2-trans-(3,4-ethylenedioxy-2-thienyl)vinylene) 183889-83-0,
 trans-1,2-Di(2-pyrrolyl)ethylene homopolymer 259737-85-4,
 Poly(3,4-ethylenedioxypyrrrole) 259737-87-6,
 Poly(3,4-propylenedioxypyrrrole) 800625-03-0,
 Poly(thieno[3,2-b]furan) 800625-19-8, Poly(4H-furo[3,2-b]pyrrole)
 800625-26-7, Poly(4H-furo[3,2-b]furan) 800625-74-5,
 Poly(thieno[3,2-b:4,5-b']difuran) 800625-89-2,
 Poly(dithieno[3,2-b:2',3'-d]furan) 800625-97-2,
 Poly(1,7-dihydro-furo[3,2-b:4,5-b']dipyrrole) 800626-07-7,
 Poly(4,7-dihydro-1H-dipyrrolo[3,2-b:2',3'-d]pyrrole) 800626-56-6,
 Poly(1,2-trans-(3,4-ethylenedioxy-2-furanyl)vinylene) 800626-65-7,
 Poly(1,2-trans-(3,4-ethylenedioxy-2-pyrrolyl)vinylene)
 RL: PEP (Physical, engineering or chemical process); PYP (Physical
 process); TEM (Technical or engineered material use); PROC
 (Process); USES (Uses)
 (fibers; elec. conductive conjugated
 polymer electrospun nanofibers for elec. devices)

RETABLE

Referenced	Author	Year VOL PG	Referenced Work	
Referenced	(RAU)	(R PY) (R VL) (R PG)	(RWK)	File
=====+=====+=====+=====+=====+=====				
Ko		2001	WO 0151690 A	
Macdiarmid, A		2001 40 2581	ANGEWANDTE CHEMIE, I	HCAPLUS
Maynor, B		2002 124 522	JOURNAL OF THE AMERI	HCAPLUS
Okuzaki, H		2005	US 2005287366 A1	HCAPLUS
Senecal, K		2001	US 2001045547 A1	
Sotzing, G		2004	US 2004242792 A1	
Sotzing, G		1994 371	POLYMERIC MATERIALS	
Sung-Yeon, J		2005 46 513	POLYMER PREPRINTS	
The Dow Chemical Compan	1994		EP 0577406 A	HCAPLUS

L30 ANSWER 8 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2006:760104 HCAPLUS Full-text

DN 145:198535

TI Polymerizable heteroarylamine compositions for forming electric
conductors, and various kinds of electronic devices comprising same
conductors

IN Shinohara, Yuji; Terao, Koichi

PA Seiko Epson Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 51 pp.

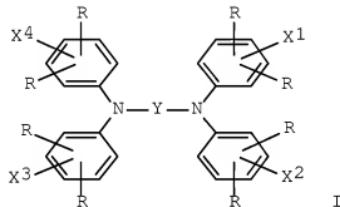
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2006199910	A	20060803	JP 2005-123191	200504 21
PRAI	JP 2004-367212	A	20041220		
OS	MARPAT 145:198535				
GI					



AB The compns. contain (meth)acryloyl-bearing heteroarylaminies I [X1-4 = CH₂:C(Z)CO₂(CH₂)_n; Z = H, Me; n = 2-8; R = H, Me, Et; Y = group bearing (substituted) heterocycle]. Also claimed are various kinds of electronic devices comprising elec. (semi)conductors made from the compns., including electroluminescent devices, photoelec. conversion devices, elec. switches, and thin-film transistors. The (semi)conductors show good carrier-transport performance.

IT 903579-23-7P 903579-24-8P 903579-25-9P

903579-26-0P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

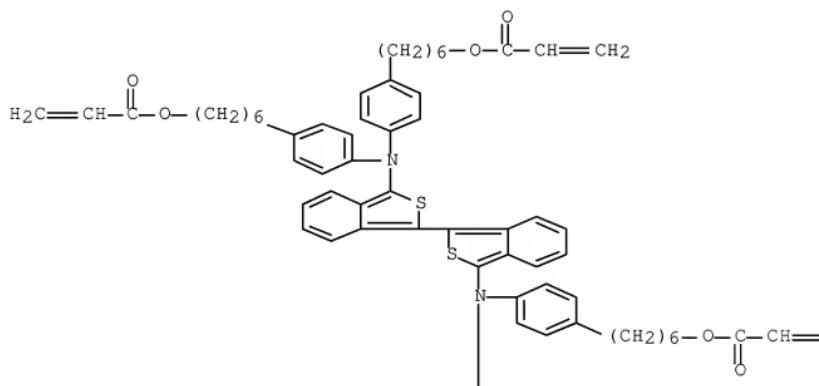
(elec. conductor; polymerizable
(meth)acryloyl-containing heteroarylamine composition for forming
elec. conductor of electronic device)

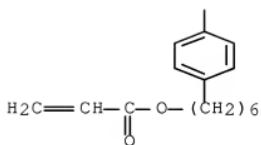
RN 903579-23-7 HCAPLUS
CN 2-Propenoic acid, 1,1'-bibenzo[c]thiophene-3,3'-diylbis[nitrilobis(4,1-phenylene-6,1-hexanediyil)] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 878028-09-2
CMF C76 H84 N2 O8 S2

PAGE 1-A



---CH_2 

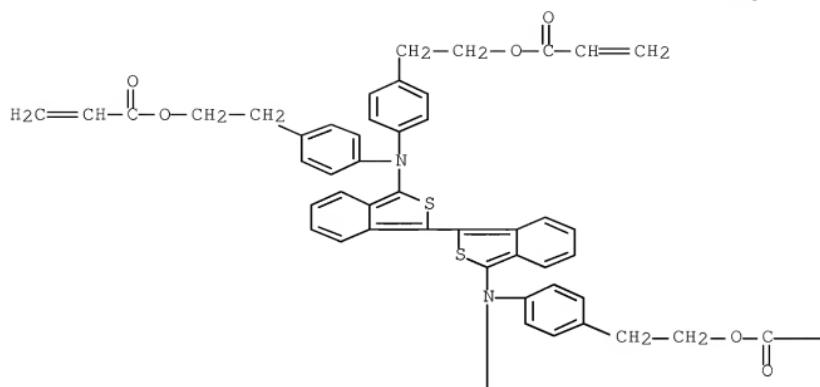
RN 903579-24-8 HCAPLUS

CN 2-Propenoic acid, 1,1'-bibenzo[c]thiophene-3,3'-diylbis[nitrilobis(4,1-phenylene-2,1-ethanediyl)] ester, homopolymer
(9CI) (CA INDEX NAME)

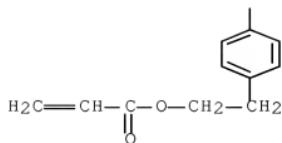
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CRN 878028-10-5

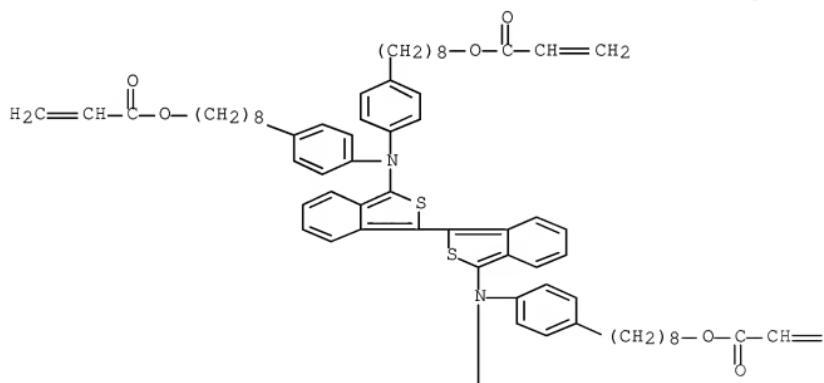
CMF C60 H52 N2 O8 S2



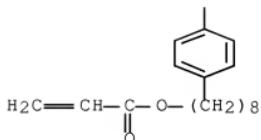
— CH=CH₂



RN 903579-25-9 HCAPLUS
 CN 2-Propenoic acid, 1,1'-bibenzo[c]thiophene-3,3'-
 diylbis[nitrilobis(4,1-phenylene-8,1-octanediy1)] ester, homopolymer
 (9CI) (CA INDEX NAME)
 CM 1
 CRN 878028-11-6
 CMF C84 H100 N2 O8 S2



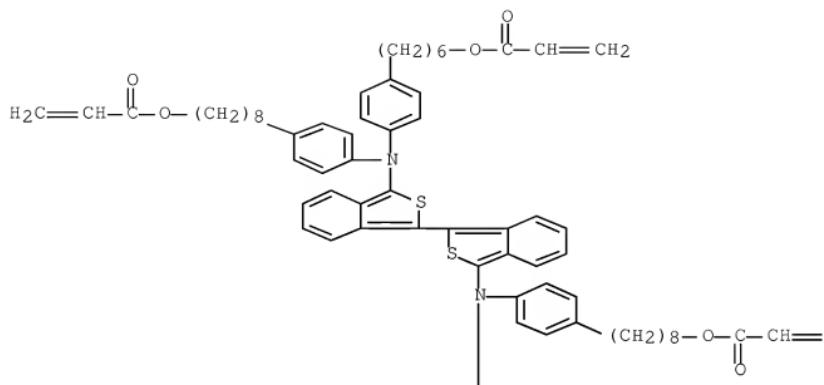
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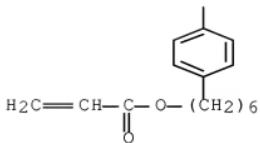


RN 903579-26-0 HCAPLUS
CN 2-Propenoic acid, 1,1'-bibenzo[c]thiophene-3,3'-diylbis[[[4-[6-[(1-oxo-2-propenyl)oxy]hexyl]phenyl]imino]-4,1-phenylene-8,1-octanediyyl]ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 878028-12-7
CMF C80 H92 N2 O8 S2

 $\equiv \text{CH}_2$



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)

Section cross-reference(s): 27, 28, 38, 74, 76

IT 903579-14-6P 903579-15-7P 903579-16-8P 903579-17-9P
 903579-18-0P 903579-19-1P 903579-20-4P 903579-21-5P
 903579-22-6P 903579-23-7P 903579-24-8P
 903579-25-9P 903579-26-0P 903579-27-1P
 903579-28-2P 903579-29-3P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(elec. conductor; polymerizable
 (meth)acryloyl-containing heteroarylamine composition for forming
 elec.
 conductor of electronic device)

L30 ANSWER 9 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN

AN 2006:760101 HCPLUS Full-text

DN 145:198534

TI Polymerizable heteroarylamine compositions for forming electric conductors, and various kinds of electronic devices comprising same conductors

IN Shinohara, Yuji; Terao, Koichi

PA Seiko Epson Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 52 pp.

CODEN: JKXXAF

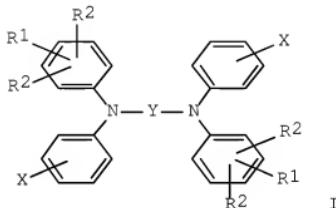
DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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-----	-----	-----	-----	-----	-----
PI JP 2006199909	A	20060803	JP 2005-123190		

PRAI JP 2004-367211 A 20041220
 OS MARPAT 145:198534
 GI



AB The compns. contain (meth)acryloyl-bearing heteroarylamines I [R1 = C2-8 linear-chained alkyl; R2 = H, Me, Et; X = CH₂:C(Z)CO₂(CH₂)_n; Z = H, Me; n = 2-8; Y = (substituted) heterocycle-bearing group]. Also claimed are various kinds of electronic devices comprising elec. (semi)conductors made from the compns., including electroluminescent devices, photoelec. conversion devices, elec. switches, and thin-film transistors. The (semi)conductors show good carrier-transport performance.

IT 903577-35-5P 903577-36-6P 903577-37-7P

RL: DEV (Device component use); IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(elec. conductor; polymerizable

(meth)acryloyl-containing heteroarylamine composition for forming elec.

conductor of electronic device)

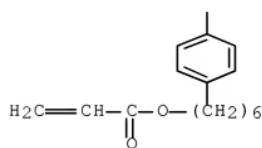
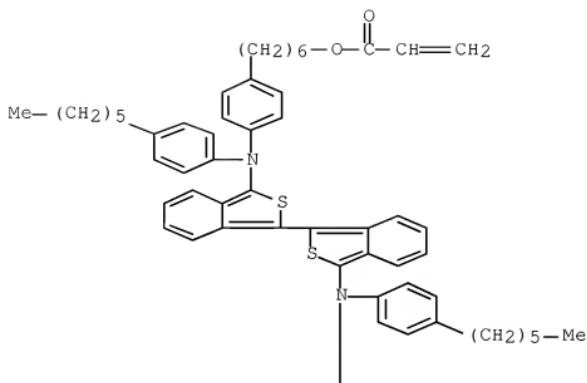
RN 903577-35-5 HCAPLUS

CN 2-Propenoic acid, [1,1'-bibenzo[c]thiophene]-3,3'-diylbis[[(4-hexylphenyl)imino]-4,1-phenylene-6,1-hexanediyil] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 903577-16-2

CMF C70 H80 N2 O4 S2



RN 903577-36-6 HCAPLUS

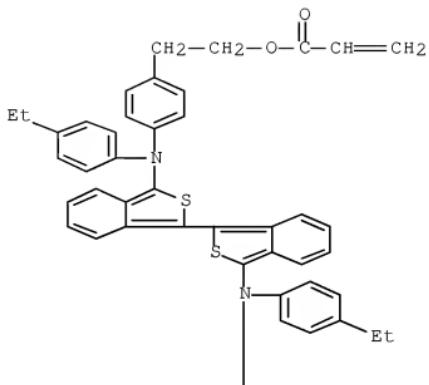
CN 2-Propenoic acid, [1,1'-bibenzo[c]thiophene]-3,3'-diylbis[[(4-ethylphenyl)imino]-4,1-phenylene-2,1-ethanediyl] ester, homopolymer (9CI) (CA INDEX NAME)

CM 1

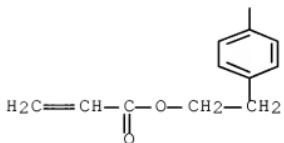
10593498

CRN 903577-17-3
CMF C54 H48 N2 O4 S2

PAGE 1-A



PAGE 2-A

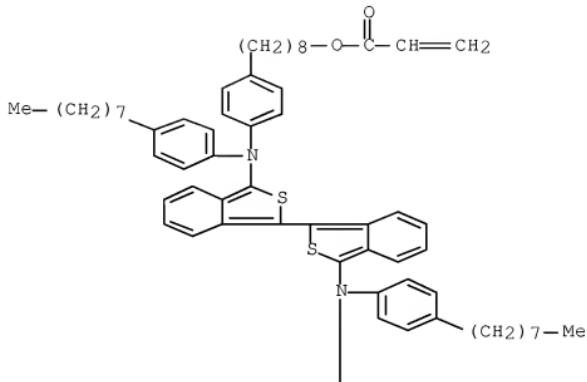


RN 903577-37-7 HCPLUS
CN 2-Propenoic acid, [1,1'-biphenyl[c]thiophene]-3,3'-diylbis[[(4-octylphenyl)imino]-4,1-phenylene-8,1-octanediyi] ester, homopolymer (9CI) (CA INDEX NAME)

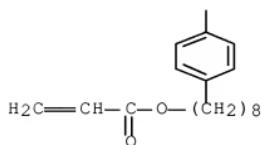
CM 1

CRN 903577-18-4
CMF C78 H96 N2 O4 S2

PAGE 1-A



PAGE 2-A



CC 73-11 (Optical, Electron, and Mass Spectroscopy and Other Related Properties)
Section cross-reference(s): 27, 28, 38, 74, 76

IT 903577-25-3P 903577-27-5P 903577-28-6P 903577-29-7P
 903577-30-0P 903577-31-1P 903577-32-2P 903577-33-3P
 903577-34-4P 903577-35-5P 903577-36-6P
 903577-37-7P 903577-38-8P 903577-39-9P 903577-40-2P
 RL: DEV (Device component use); IMF (Industrial manufacture); TEM
 (Technical or engineered material use); PREP (Preparation); USES
 (Uses)
 (elec. conductor; polymerizable
 (meth)acryloyl-containing heteroarylamine composition for forming
 elec.
 conductor of electronic device)

L30 ANSWER 10 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2005:1049915 HCAPLUS Full-text

DN 143:358278

TI Crosslinked self-doping type electrically conducting polymer,
 production process thereof, product coated with the polymer and
 electronic device

IN Saida, Yoshihiro; Ohkubo, Takashi

PA Showa Denko K. K., Japan

SO PCT Int. Appl., 107 pp.

CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	WO 2005091309	A1	20050929	WO 2005-JP5996	200503 23

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 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR,
 KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX,
 MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
 SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
 VC, VN, YU, ZA, ZM, ZW

RW: BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW,
 AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
 DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC,
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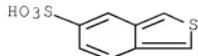
JP 2006096974	A	20060413	JP 2005-82848	200503 23
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EP 1728256	A1	20061206	EP 2005-721645
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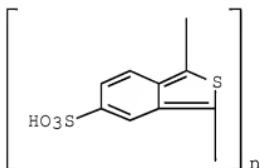
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R:	AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LI, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR			
CN 1934658	A	20070321	CN 2005-80008929	
				200503 23
US 20070194285	A1	20070823	US 2006-593498	
				200609 20
KR 2007008642	A	20070117	KR 2006-721655	
				200610 18
PRAI	KR 803699 JP 2004-87370 US 2004-558555P JP 2004-257435 US 2004-608873P WO 2005-JP5996	B1 A P A P W	20080220 20040324 20040402 20040903 20040913 20050323	
AB	The invention relates to a self-doping type elec. conducting polymer comprising an isothianaphthene or thiophene skeleton where the polymer chains are crosslinked preferably through a sulfone bond, as represented by formula (2) or (5) below, which is imparted with water resistance and solvent resistance; a production process thereof; an elec. conducting composition film obtained by coating a composition containing the self-doping type elec. conducting polymer on a substrate and heating it; a product coated using the composition; and an electronic device containing the self-doping type elec. conducting polymer: (wherein the symbols are as described in the specification).			
IT	181815-08-7D, crosslinked 188754-53-2D, Poly(5-sulfobenzo[c]thiophene-1,3-diyl), crosslinked			
	RL: DEV (Device component use); USES (Uses) (crosslinked self-doping elec. conducting polymer for electronic device)			
RN	181815-08-7 HCAPLUS			
CN	Benzo[c]thiophene-5-sulfonic acid, homopolymer (9CI) (CA INDEX NAME)			

CM 1

CRN 181815-07-6
CMF C8 H6 O3 S2



RN 188754-53-2 HCPLUS
 CN Poly(5-sulfobenzo[c]thiophene-1,3-diyl) (CA INDEX NAME)



IC ICM H01B001-12
 ICS C08G061-12
 CC 76-3 (Electric Phenomena)
 Section cross-reference(s): 38, 74
 IT 135899-67-1D, crosslinked 139439-92-2D, crosslinked
 181815-08-7D, crosslinked 188754-53-2D,
 Poly(5-sulfobenzo[c]thiophene-1,3-diyl), crosslinked
 RL: DEV (Device component use); USES (Uses)
 (crosslinked self-doping elec. conducting
 polymer for electronic device)

RETABLE

Referenced	Author	Year	VOL	PG	Referenced Work	
Referenced	(RAU)	(R PY)	(R VL)	(R PG)	(RWK)	File
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Anon		1991	015	C-0896 PATENT ABSTRACTS OF		
Anon		1998	1998		PATENT ABSTRACTS OF	
Anon		2001	2000		PATENT ABSTRACTS OF	
Mitsubishi Rayon Co Ltd	2001			JP 2001098069 A	HCPLUS	
Showa Denko Kabushiki K	1993			EP 0545417 A	HCPLUS	
Showa Denko KK	1991			JP 03221520 A	HCPLUS	
Showa Denko KK	1998			JP 10168328 A	HCPLUS	

L30 ANSWER 11 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN
 AN 2005:394777 HCPLUS Full-text
 DN 142:412900
 TI Durable highly conductive synthetic fabric construction containing
 electrical conductive polymers
 IN Levine, Mark; O'Connor, Joseph G.; Ditaranto, Frank; Toney, Crayton
 Gregory; Luo, Shuiyuan
 PA Albany International Corp, USA
 SO U.S. Pat. Appl. Publ., 5 pp.
 CODEN: USXXCO

DT Patent

LA English

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050095935	A1	20050505	US 2003-699997	200311 03
	AU 2003297917	A1	20040606	AU 2003-297917	200312 12
	CA 2544634	A1	20050526	CA 2003-2544634	200312 12
	WO 2005047576	A1	20050526	WO 2003-US39623	200312 12

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA,
 CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
 GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP,
 KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW,
 MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE,
 SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN,
 YU, ZA, ZM, ZW
 RW: BW, GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
 AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE,
 DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO,
 SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML,
 MR, NE, SN, TD, TG

EP 1680537	A1	20060719	EP 2003-796987	200312 12
R:	AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK			
BR 2003018565	A	20061010	BR 2003-18565	200312

CN 1860261	A	20061108	CN 2003-80110639	12 200312 12
JP 2007521405	T	20070802	JP 2005-510670	200312 12
RU 2335584	C2	20081010	RU 2006-113689	200312 12
IN 2006DN02323	A	20070713	IN 2006-DN2323	200604 27
MX 2006PA04800	A	20060703	MX 2006-PA4800	200604 28
NO 2006002519	A	20060801	NO 2006-2519	200606 01

PRAI US 2003-699997 A 20031103
 WO 2003-US39623 W 20031212

AB Title conductive fabric comprises a plurality of oriented polymeric filaments, wherein each filament includes elec. conductive polymer material incorporated as either a blend or a coating, the conductive fabric having static dissipation properties comparable to metal-based fabrics while being resistant to dents and creases. The fabric also has desirable phys. properties comparable to non-conductive synthetic fabrics.

IT 91201-85-3, Poly-isothianaphthene
 RL: TEM (Technical or engineered material use); USES (Uses)
 (filaments; durable highly conductive synthetic fabric
 construction containing elec. conductive
 polymers)

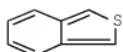
RN 91201-85-3 HCAPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6

CMF C8 H6 S



IC ICM B32B027-02
 INCL 442110000; X44-216.4; X42-829.97; X42-837.5; X42-837.8; X42-839.4;
 X42-840.7
 CC 40-10 (Textiles and Fibers)
 IT 25067-58-7, Polyacetylene 25190-62-9, Poly(1,4-phenylene)
 25190-62-9D, Poly(1,4-phenylene), 2,5-alkoxy-substituted
 25212-74-2, Poly(thio-1,4-phenylene) 25233-34-5, Polythiophene
 26009-24-5, Poly(1,4-phenylene-1,2-ethenediy1) 26009-24-5D,
 Poly(1,4-phenylene-1,2-ethenediy1), alkoxy-substituted 30604-81-0,
 Polypyrrole 91201-85-3, Poly-isothianaphthene
 104934-50-1, Poly(3-hexyl thiophene) 126213-51-2, Poly(ethylene
 dioxythiophene
 RL: TEM (Technical or engineered material use); USES (Uses)
 (filaments; durable highly conductive synthetic fabric
 construction containing elec. conductive
 polymers)

L30 ANSWER 12 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
 AN 2005:259271 HCAPLUS Full-text
 DN 142:282618
 TI Electrically conducting lubricating greases containing conducting
 polymers, especially for electric motors and bearing assemblies
 IN Kuo, Ming C.; Hoover, William R.; Akkala, Marc W.; Mehlhorn, William
 L.
 PA A.O. Smith Corporation, USA
 SO U.S. Pat. Appl. Publ., 8 pp.
 CODEN: USXXCO
 DT Patent
 LA English
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 20050062350	A1	20050324	US 2003-645420	200308 21

PRAI US 2003-645420 20030821
 AB The ability of a lubricating grease to support an elec. voltage when
 functioning in an elec. motor is decreased by mixing elec. conducting
 particles with the grease to form a conductive grease. Suitable
 conducting particles consist of a combination of carbon (or carbon
 black) and a metal, in which the particles are coated with a
 conducting polymer. Suitable conducting polymers include
 polyacetylene, polyphenylene, polyphenylenevinylene, polypyrrole,
 polyisothianaphthene, polyphenylene sulfide, polythiophene, poly(3-

alkylthiophenes), polyazulene, polyfuran, and polyaniline. The grease is suitable for use in motors that include a frame, a stator fixed relative to the frame, a bearing assembly fixed relative to the frame, and a rotor supported by the bearing assembly for rotation relative to the stator.

IT 91201-85-3, Polyisothianaphthene

RL: TEM (Technical or engineered material use); USES (Uses)
 (coating, lubricating greases containing; elec. conducting
 lubricating greases containing conducting polymers
 , especially for elec. motors and bearing assemblies)

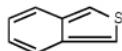
RN 91201-85-3 HCPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6

CMF C8 H6 S



IC ICM H02K005-16

ICS H02K011-00

INCL 310090000; 508410000; 310071000

CC 51-8 (Fossil Fuels, Derivatives, and Related Products)

IT 110-02-1D, Thiophene, 3-alkyl derivs., polymers 9033-83-4,
 Poly(phenylene) 25067-54-3, Polyfuran 25067-58-7, Polyacetylene
 25233-30-1, Polyaniline 25233-34-5, Polythiophene 30604-81-0,
 Polypyrrole 82451-56-7, Polyazulene 91201-85-3,

Polyisothianaphthene 96638-49-2, Polyphenylenevinylene

RL: TEM (Technical or engineered material use); USES (Uses)
 (coating, lubricating greases containing; elec. conducting
 lubricating greases containing conducting polymers
 , especially for elec. motors and bearing assemblies)

L30 ANSWER 13 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN

AN 2004:651398 HCPLUS Full-text

DN 141:182917

TI Ink containing electrically conductive polymer microcapsules and
 laminated sheet using the ink for formation of electric circuit

IN Umeda, Makoto

PA Toppan Forms Co., Ltd., Japan

SO Jpn. Kokai Tokkyo Koho, 9 pp.
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 2004224835	A	20040812	JP 2003-11419	200301 20

PRAI JP 2003-11419 20030120

AB The ink contains the microcapsules made of cores containing an elec. conductive conjugated polymer and an elec. insulating material as walls. The sheet is that obtained from the 1st substrate having an elec. circuit involving elec. insulating portions, which is formed by the ink, and the 2nd substrate laminated at least on the elec. insulator portion through a pressure-sensitive adhesive layer. The 2nd substrate is peeled off so that the microcapsules are broken and that elec. insulator portion is converted to an elec. circuit on the 1st substrate.

IT 91201-85-3, Polyisothianaphthene

RL: TEM (Technical or engineered material use); USES (Uses)
(ink containing elec. conductive polymer
microcapsules for laminated sheet for formation of elec. circuit)

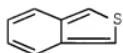
RN 91201-85-3 HCPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6

CMF C8 H6 S



IC ICM C09D011-02
ICS H01B001-20; H01B005-14; H05K003-12

CC 76-2 (Electric Phenomena)

Section cross-reference(s): 38, 42

IT 9033-83-4, Polyphenylene 25067-54-3, Polyfuran 25067-58-7,
Polyacetylene 25135-16-4, Polynaphthalene 25212-74-2,

Poly(thio-1,4-phenylene) 25233-30-1, Polyaniline 25233-34-5,
 Polythiophene 30604-81-0, Polypyrrole 41496-25-7, Polypyrene
 82451-56-7, Polyazulene 89231-09-4, Polyselenophene
 91201-85-3, Polyisothianaphthene 96638-49-2,
 Poly(phenylene vinylene) 114239-80-4, Polyperinaphthalene
 152633-31-3

RL: TEM (Technical or engineered material use); USES (Uses)
 (ink containing elec. conductive polymer
 microcapsules for laminated sheet for formation of elec. circuit)

L30 ANSWER 14 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN
 AN 2004:271590 HCPLUS Full-text

DN 140:311998

TI Antistatic agent for antistatic film covering chemically amplified
 resist film, pattern formation using the antistatic film, and its
 use

IN Saita, Yoshihiro; Abe, Shinyoku

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 20 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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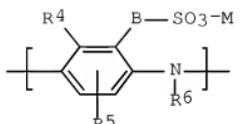
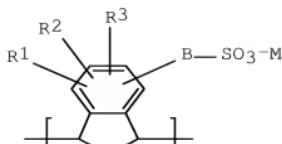
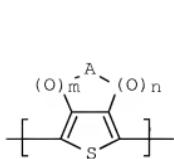
PI	JP 2004099678	A	20040402	JP 2002-260957	200209 06
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JP 4040938 B2 20080130

PRAI JP 2002-260957 20020906

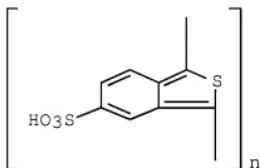
OS MARPAT 140:311998

GI



AB The antistatic agent with good pH stability contains water-soluble elec. conductive polymers, fluorinated aliphatic amines, and water. Preferably, the amines comprise ≥ 1 represented by the general formula $X(CF_2)_mCY_2NH_2$ ($X = F, OH; Y = H, F; m = 1-10$ integer), more preferably, trifluoroethylamine. Preferably, the water-soluble elec. conductive polymers comprise π -conjugated ones bearing Broensted acid groups, more preferably, sulfonic acid groups. More preferably, the water-soluble elec. conductive polymers are represented by general formulas I [$m, n = 0, 1; A = C1-4 alkylene, C1-4 alkenylene$ which have ≥ 1 BSO_3-M , may be substituted with halo, OH, NO₂, etc., and may contain ≥ 2 C:C; B = $(CH_2)p[O(CH_2)q]r$; p = 0-5 integer, q = 1-3 integer, r = 0-3 integer; M = H+, alkali metal ion, quaternary ammonium ion], II or III [R1-R5 = H, C1-20 hydrocarbyl, alkoxy, alkylester, OH, halo, NO₂, BSO_3M , etc.; alkyl, alkoxy, or alkylester groups of R1-R5 may contain CO, ether, CO₂, SO₃, amido, sulfoneamido, sulfide, S(O), SO₂, :NH, thioether in the chain; R6 = H, C1-20 hydrocarbyl or Ph which may be substituted; B, p, q, r, M = same as I]. The water-soluble elec. conductive polymers may contain 5-sulfoisothianaphthene-1,3-diyl as the chemical structure. The antistatic treatment agent may contain surfactants. Chemical-amplified resist films are covered with films of the antistatic treatment agent. Semiconductor elements, photomasks, reticles, glass substrates, quartz substrates, GMR heads, or magnetic substrates are fabricated by using the antistatic treatment agent.

IT 188754-53-2, Poly(5-sulfoisothianaphthene-1,3-diyl)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (buffered water-soluble elec. conductive
 polymer-based antistatic agent for antistatic coating on
 chemical amplified resist film, its patterning, and its use)
 RN 188754-53-2 HCPLUS
 CN Poly(5-sulfonylbenzo[c]thiophene-1,3-diyl) (CA INDEX NAME)



IC ICM C09K003-16
 ICS C08G061-12; C08L079-00; G03F007-11; H01L021-027
 CC 74-5 (Radiation Chemistry, Photochemistry, and Photographic and
 Other Reprographic Processes)
 Section cross-reference(s): 38, 76, 77
 IT 188754-53-2, Poly(5-sulfoisothianaphthene-1,3-diyl)
 RL: TEM (Technical or engineered material use); USES (Uses)
 (buffered water-soluble elec. conductive
 polymer-based antistatic agent for antistatic coating on
 chemical amplified resist film, its patterning, and its use)

L30 ANSWER 15 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN

AN 2002:693651 HCPLUS Full-text

DN 137:234047

TI Actuators and their manufacture

IN Kito, Yasuhiko

PA Japan

SO Jpn. Kokai Tokkyo Koho, 8 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI JP 2002262542	A	20020913	JP 2001-57052	
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200103
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PRAI JP 2001-57052

20010301

AB Title actuators, having good softness, response, and controllability, consist of (A) elec. insulating polymeric films and (B) elec. conductive polymeric films which are located on top of the A films and have main chain direction parallel to and almost the same direction as the A films; the B films could further form into tubular or folded shape along the main chain direction. The actuators are prepared by ionizing the elec. conductive polymer vapors or spray-ionizing solns. containing the elec. conductive polymer precursors (e.g., monomers or oligomers), followed by elec. adsorbing onto the A films in presence of magnetic field. Detailed illustrations are presented and elec. conductive polymers are preferably polymers containing Bronsted acid groups with dopant ability e.g., isothianaphthene-isothianaphthene-5-sulfonic acid copolymer, etc.

IT 181815-09-8

RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)

(manufacture of elec. conductive polymer
-laminated insulating polymer film actuators by ion-vapor deposition)

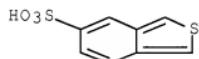
RN 181815-09-8 HCAPLUS

CN Benzo[c]thiophene-5-sulfonic acid, polymer with benzo[c]thiophene (9CI) (CA INDEX NAME)

CM 1

CRN 181815-07-6

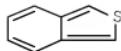
CMF C8 H6 O3 S2



CM 2

CRN 270-82-6

CMF C8 H6 S



IC ICM H02K033-00
 ICS C08J007-04; C08L101-00
 CC 42-2 (Coatings, Inks, and Related Products)
 Section cross-reference(s): 76
 IT 152950-70-4 181815-09-8
 RL: PEP (Physical, engineering or chemical process); PYP (Physical process); TEM (Technical or engineered material use); PROC (Process); USES (Uses)
 (manufacture of elec. conductive polymer
 -laminated insulating polymer film actuators by ion-vapor deposition)

L30 ANSWER 16 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN
 AN 2001:910860 HCPLUS Full-text
 DN 136:297278
 TI Hybrid solar cells based on dye-sensitized nanoporous TiO₂ electrodes and conjugated polymers as hole transport materials
 AU Gebeyehu, D.; Brabec, C. J.; Sariciftci, N. S.; Vangeneugden, D.; Kiebooms, R.; Vanderzande, D.; Kienberger, F.; Schindler, H.
 CS Linz Institute for Organic Solar Cells (LIOS), Physical Chemistry, Johannes Kepler University of Linz, Linz, A-4040, Austria
 SO Synthetic Metals (2001), Volume Date 2002, 125(3), 279-287
 CODEN: SYMEDZ; ISSN: 0379-6779
 PB Elsevier Science S.A.
 DT Journal
 LA English
 AB Solid state dye-sensitized photovoltaic solar cells were fabricated using a three-layer concept. The hybrid devices consist of a transparent inorg. nanocryst. titanium dioxide (nc-TiO₂) layer with a thickness of 2 μm as electron acceptor and for electron transport. A surface-adsorbed RuL₂(NCS)2:2 TBA dye complex (where L is 2,2'-bipyridyl-4,4'-dicarboxylic acid; TBA is tetrabutylammonium) is used for light absorption and electron injection to the conduction band of TiO₂. For the transport of holes to the back-contact electrode, conjugated polymers were used, either a poly(3-octylthiophene) or a low-band-gap thiophene-isothianaphthene-based copolymer. These devices exhibited an overall energy conversion efficiency of approx. 0.16% under simulated solar irradiation (80 mW/cm²). Furthermore, the surface network morphol. of these film layers were

investigated by atomic microscope (AFM) in order to explore strategies to improve conversion efficiency.

IT 355142-55-1, Benzo[c]thiophene, polymer with thiophene
 RL: DEV (Device component use); USES (Uses)
 (low-band-gap; hybrid solar cell with dye-sensitized titania electrode and conjugated conducting polymers)

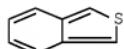
RN 355142-55-1 HCAPLUS

CN Benzo[c]thiophene, polymer with thiophene (9CI) (CA INDEX NAME)

CM 1

CRN 270-82-6

CMF C8 H6 S



CM 2

CRN 110-02-1

CMF C4 H4 S



CC 52-2 (Electrochemical, Radiational, and Thermal Energy Technology)
 Section cross-reference(s): 41

IT 355142-55-1, Benzo[c]thiophene, polymer with thiophene
 RL: DEV (Device component use); USES (Uses)
 (low-band-gap; hybrid solar cell with dye-sensitized titania electrode and conjugated conducting polymers)

RETABLE

Referenced Author	Year VOL PG	Referenced Work	
Referenced			
(RAU)	(R PY) (R VL) (R PG)	(RWK)	File

Arango, A	1999 74	1698	Appl Phys Lett	HCAPLUS	
Argazzi, R	1994 33	5741	Inorg Chem	HCAPLUS	
Bach, U	1998 395	583	Nature	HCAPLUS	
Balzani, V	1998 31	26	Acc Chem Res	HCAPLUS	
Barbe, C	1997 80	3157	J Am Ceram Soc	HCAPLUS	
Bignozzi, C	1994 32	229	Sol Energy Mater Sol	HCAPLUS	
Campbell, I	1999 74	561	Appl Phys Lett	HCAPLUS	
Cao, F	1995 99	17071	J Phys Chem	HCAPLUS	
Ferber, J	1998 54	265	Sol Energy Mater Sol	HCAPLUS	
Ferrere, S	1998 120	843	J Am Chem Soc	HCAPLUS	
Ferrere, S	1997 101	4490	J Phys Chem B	HCAPLUS	
Gebeyehu, D	1999 1	89	Int J Photoenergy		
Gebeyehu, D	1999 1	95	Intern J Photoenergy	HCAPLUS	
Gratzel, M	1995		US 5393903	HCAPLUS	
Gratzel, M	1994 38	151	Platinum Metals Rev	HCAPLUS	
Green, M	1998 6	35	Prog Photovolt Res A	HCAPLUS	
Greenham, N	1997 54	17628	Phys Rev B		
Hagen, J	1997 89	215	Synth Met	HCAPLUS	
Halls, J	1996 68	3120	Appl Phys Lett	HCAPLUS	
He, J	1997 101	9027	J Phys Chem B	HCAPLUS	
Heimer, T	1996 35	5319	Inorg Chem	HCAPLUS	
Huang, S	1997 101	2576	J Phys Chem B	HCAPLUS	
Kajihara, K	1997 36	5537	Jpn Appl Phys	HCAPLUS	
Kavan, L	1996 143	394	J Electrochim Soc	HCAPLUS	
Kay, A	1993 97	6272	J Phys Chem	HCAPLUS	
Kiebooms, R	1997 62	1473	J Org Chem	HCAPLUS	
Meyer, G	1997 74	652	J Chem Educ	HCAPLUS	
Murakoshi, K	1997		Chem Lett		
Nazeeruddin, M	1997 1705		Chem Commun		
Nazeeruddin, M	1993 115	6382	J Am Chem Soc	HCAPLUS	
Nazeeruddin, M	1997 5471		J Chem Soc, Dalton T		
O'Regan, B	1995 7	1349	Chem Mater	HCAPLUS	
O'Regan, B	1991 353	737	Nature	HCAPLUS	
Papageorgiou, N	1998 102	4156	J Phys Chem B	HCAPLUS	
Park, Y	1996 68	2699	Appl Phys Lett	HCAPLUS	
Parker, I	1994 75	1656	J Appl Phys	HCAPLUS	
Ruile, S	1997 261	129	Inorg Chim Acta	HCAPLUS	
Sariciftci, N	1998		Primary Photoexcitat		
Savenije, T	1998 287	148	Chem Phys Lett	HCAPLUS	
Savenije, T	2000 61	9	Sol Energy Mater Sol	HCAPLUS	
Schluchthorl, G	1997 101	8141	J Phys Chem B		
Shaheen, S	2001 78	841	Appl Phys Lett	HCAPLUS	
Tennakone, K	1998 31	1492	J Phys D: Appl Phys	HCAPLUS	
Tennakone, K	1995 10	1689	Sci Technol		
Usami, A	1997 277	105	Chem Phys Lett	HCAPLUS	

Van Hal, P	1999 103 4352 J Phys Chem B	HCAPLUS
Yanagi, H	1996 100 5447 J Phys Chem	HCAPLUS
Zakeeruddin, S	1997 36 5937 Inorg Chem	HCAPLUS

L30 ANSWER 17 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 2000:686383 HCAPLUS Full-text

DN 133:274316

TI Scratch resistant antistatic layer for imaging elements

IN Majumdar, Debasis; Anderson, Charles Chester

PA Eastman Kodak Company, USA

SO Eur. Pat. Appl., 15 pp.

CODEN: EPXXDW

DT Patent

LA English

FAN.CNT 2

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	EP 1039342	A1	20000927	EP 2000-200894	200003 13
	EP 1039342	B1	20050504		
	R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
	US 6187522	B1	20010213	US 1999-276530	199903 25
	JP 2000298329	A	20001024	JP 2000-88543	200003 24

PRAI US 1999-276530 A 19990325

AB An imaging element comprises a support, an image-forming layer superposed on the support and an outermost scratch resistant antistatic layer with thickness 0.6-10 μ superposed on the support. The scratch resistant layer is composed of a ductile polymer having a modulus >100 MPa measured at 20 °C and a tensile elongation to break >50%, a filler particle having a modulus >10 GPa, and an elec.-conducting polymer. The volume ratio of the polymer to the filler particle is between 70:30 and 40:60 and the elec.-conducting polymer is present at a weight concentration based on a total dried weight of the scratch resistant layer of 1-10 weight%. The ductile polymer may be a polycarbonate, polyurethane, or polyolefin. The elec.-conducting polymer may be a substituted or unsubstituted pyrrole-containing polymer, a substituted or unsubstituted thiophene-containing polymer, a substituted or unsubstituted aniline-containing polymer, or polyisothianaphthene, especially polypyrrrole styrene sulfonate or 3,4-dialkoxy substituted polypyrrrole styrene sulfonate.

The hard filler may be colloidal SiO₂, colloidal tin oxide, colloidal TiO₂, mica, clays, doped metal oxides, metal oxides with oxygen deficiencies, metal antimonates, conductive nitrides, carbides or borides.

IT 91201-85-3, Polyisothianaphthene

RL: TEM (Technical or engineered material use); USES (Uses)
(elec. conducting polymer; scratch

resistant antistatic layer containing ductile polymer and hard

filler
and elec. conducting polymer for
imaging elements)

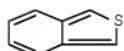
RN 91201-85-3 HCPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6

CMF C8 H6 S



IC ICM G03C001-76

ICS G03G005-147; B41M005-40

CC 74-9 (Radiation Chemistry, Photochemistry, and Photographic and
Other Reprographic Processes)

IT 91201-85-3, Polyisothianaphthene

RL: TEM (Technical or engineered material use); USES (Uses)
(elec. conducting polymer; scratch

resistant antistatic layer containing ductile polymer and hard

filler
and elec. conducting polymer for
imaging elements)

RETABLE

Referenced Author	Year VOL PG	Referenced Work	
Referenced	(RAU) (R PY) (R VL) (R PG)	(R WK)	File
3M	1997	WO 9738358 A	HCPLUS
Agfa-Gevaert	1994	EP 0602713 A	HCPLUS
Zumbulyadis	1997	US 5674654 A	HCPLUS

L30 ANSWER 18 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN

AN 1997:289842 HCPLUS Full-text

DN 126:264787

OREF 126:51279a,51282a

TI Antistatic film-containing compositions, films therefrom, antistatic film-containing supports used in image-forming devices, fixation rollers, and manufacture thereof

IN Kato, Junya; Ohira, Manabu

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 09048921	A	19970218	JP 1995-199966	199508 04
	JP 3629762	B2	20050316		200404 26
	JP 2004300443	A	20041028	JP 2004-130017	
	JP 3902194	B2	20070404		200407 26
	JP 2005025209	A	20050127	JP 2004-217788	
	JP 4160025	B2	20081001		200610 30
	JP 2007119784	A	20070517	JP 2006-294952	
	JP 4131335	B2	20080813		200801 21
	JP 2008150616	A	20080703	JP 2008-10966	

PRAI JP 1995-199966 A3 19950804

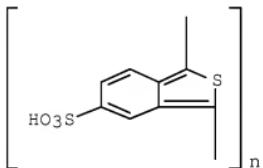
JP 2004-130017 A3 20040426

JP 2006-294952 A3 20061030

AB The title compns. controlling the title support surface resistance to certain ranges of semiconductor region comprise elec. conductive π -conjugated polymers, resin, and solvent. Thus, a ball-milled composition from Nippolan 5137 (polyurethane) 100 dissolved in water 12, and poly(1,3-isothianaphhenylene-5-sulfonate) 3 g was coated on a dielec. Bu rubber plate to obtain a coating film showing surface

resistant 1 x 1011 Ω/.box. (85% humidity) and 6 x 1011 Ω/.box. (10% humidity).

IT 188754-53-2, Poly(5-sulfobenzo[c]thiophene-1,3-diyl)
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (antistatic film-forming compns. containing elec.
 conductive π-conjugated polymers for elec.
 resistance control of imaging device supports)
 RN 188754-53-2 HCPLUS
 CN Poly(5-sulfobenzo[c]thiophene-1,3-diyl) (CA INDEX NAME)



IC ICM C08L101-12
 ICS C08G061-12; C08L065-00; C09D201-00; G03G015-20
 CC 37-3 (Plastics Manufacture and Processing)
 Section cross-reference(s): 42, 74
 IT 32036-19-4, Poly(1,4-iminophenylene) 139439-92-2,
 Poly[3-(3-sulfopropyl)-2,5-thiophenediyl] 188754-53-2,
 Poly(5-sulfobenzo[c]thiophene-1,3-diyl) 188754-54-3,
 Poly(1-octyl-1H-pyrrole-2,5-diyl)
 RL: MOA (Modifier or additive use); TEM (Technical or engineered material use); USES (Uses)
 (antistatic film-forming compns. containing elec.
 conductive π-conjugated polymers for elec.
 resistance control of imaging device supports)

L30 ANSWER 19 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN

AN 1997:215994 HCPLUS Full-text

DN 126:293790

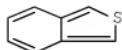
OREF 126:56899a, 56902a

TI Evidence of quinonoid structures in the vibrational spectra of thiophene based conducting polymers: poly(thiophene), poly(thieno[3,4-b]benzene), and poly(thieno[3,4-b]pyrazine)

AU Cuff, Lilee; Kertesz, Miklos

CS Dep. Chem., Georgetown Univ., Washington, DC, 20057-1227, USA

SO Journal of Chemical Physics (1997), 106(13), 5541-5553
 CODEN: JCPSA6; ISSN: 0021-9606
 PB American Institute of Physics
 DT Journal
 LA English
 AB By combining vibrational spectra and ab initio calcns., a consistent description was obtained, of the IR and nonresonant Raman spectra, including intensities, of four thiophene based polymers-undoped and heavily doped poly(thiophene) (PTh), undoped poly(thieno[3,4-b]benzene) (PITN), nd poly(thieno[3,4-b]pyrazine) (PThP). Predicted spectra for poly(thiophene) agree with experiment well. Based on the calculated force consts. and Badger's rule, the average inter-ring bond length of undoped and doped PTh were estimated to be 1.47 and 1.42 Å, resp. The latter leads to an estimated 33% quinonoid character on average for heavily doped PTh. The average inter-ring bond length of undoped PITN and PThP, are consistent with their vibrational spectra and are estimated to be 1.41, and 1.42 Å, resp. These values showed that undoped PITN and PThP have quinonoid character close to that of heavily doped PTh. Upon doping, the average bond lengths of PTh changed by -0.01, 0.11, and -0.05 Å for intra-ring Cβ-Cβ, Ca-Cβ, and inter-ring bonds, resp. These bond length changes are significantly different from those of Hartree-Fock-type calcns., reflecting significant correlation contributions and are also in conflict with earlier empirical fits of the vibrational spectrum of the highly doped phase of PTh. However, these results are more in line with the generally accepted picture of an aromatic to quinonoid transition of the doping process. Furthermore, the counterintuitive downward frequency shifts in the vibrational spectra of PTh upon doping can be explained by the structural change from an essentially aromatic to a partially quinonoid form.
 IT 91201-85-3
 RL: PRP (Properties)
 (evidence of quinonoid structures in vibrational spectra of polythiophene, poly(thienobenzene), and poly(thienopyrazine) conducting polymers)
 RN 91201-85-3 HCPLUS
 CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)
 CM 1
 CRN 270-82-6
 CMF C8 H6 S



CC 36-2 (Physical Properties of Synthetic High Polymers)

Section cross-reference(s): 76

IT 25233-34-5, Poly(thiophene) 91201-85-3 125541-34-6,

Poly(thieno[3,4-b]pyrazine)

RL: PRP (Properties)

(evidence of quinonoid structures in vibrational spectra of polythiophene, poly(thienobenzene), and poly(thienopyrazine) conducting polymers)

RETABLE

Referenced Author (RAU)	Year	VOL	PG	Referenced Work (RWK)	File
	(RPY) (RVL) (RPG)				
<hr/>					
Akimoto, M	1986	15	353	Synth Met	HCAPLUS
Allen, W	1992	114	6834	J Am Chem Soc	HCAPLUS
Badger, R	1934	2	128	J Chem Phys	HCAPLUS
Badger, R	1935	3	193	J Chem Phys	
Bak, B	1961	7	58	J Mol Spectrosc	HCAPLUS
Baker, G	1988		271	Electronic and Photo	HCAPLUS
Belsky, V	1984	40	1210	Acta Crystallogr C	
Bock, C	1990	11	623	J Comput Chem	HCAPLUS
Bredas, J	1984	29	6761	Phys Rev B	HCAPLUS
Castiglioni, C	1993	24	485	J Raman Spectrosc	HCAPLUS
Cuff, L	1994	116	9269	J Am Chem Soc	HCAPLUS
Cuff, L	1994	98	12223	J Phys Chem	HCAPLUS
Cuff, L	1994	27	762	Macromolecules	HCAPLUS
Cuff, L	1993	55	564	Synth Met	HCAPLUS
Cui, C	1990	93	5257	J Chem Phys	HCAPLUS
Cui, C	1991	41-43 3491		Synth Met	
Damiani, D	1976	37	265	Chem Phys Lett	HCAPLUS
Ehrendorfer, C	1995	99	10196	J Phys Chem	HCAPLUS
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Ehrendorfer, C	1995	8	293	Vibrational Spectros	HCAPLUS
Faulques, E	1989	90	7585	J Chem Phys	HCAPLUS
Fogarasi, G	1987	151	341	J Mol Struct	
Fogarasi, G	1985	14	125	Vibrational Spectra	HCAPLUS
Frisch, M	1990			gaussian 90	
Frisch, M	1992			gaussian 92	
Furukawa, Y	1994	256	113	Mol Cryst Liquid Cry	HCAPLUS

Furukawa, Y	1987 18	151	Synth Met	HCAPLUS
Hoogmartens, I	1992 25	7347	Macromolecules	HCAPLUS
Hoogmartens, I	1991 14/1- 513		Synth Met	
Ikenoue, Y	1991 40	1	Synth Met	HCAPLUS
Karpfen, A	1991 95	7680	J Phys Chem	HCAPLUS
Kastner, J	1995 28	2922	Macromolecules	HCAPLUS
Kertesz, M	1995 69	641	Synth Met	HCAPLUS
Kobayashi, M	1985 82	5717	J Chem Phys	HCAPLUS
Kofranek, M	1992 96	4464	J Chem Phys	HCAPLUS
Kofranek, M	1992 96	982	J Chem Phys	HCAPLUS
Kofranek, M	1992 259	181	J Mol Struct Theoche	HCAPLUS
Kurti, J	1991 113	9865	J Am Chem Soc	
Kurti, J	1990 92	3247	J Chem Phys	HCAPLUS
Langseth, A	1956 34	350	Can J Phys	HCAPLUS
Lee, Y	1987 21	163	Int J Quantum Chem Q	HCAPLUS
Lee, Y	1988 88	2609	J Chem Phys	HCAPLUS
Louarn, G	1992 89	987	J Chim Phys	HCAPLUS
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Nayak, K	1990 73	2237	Macromolecules	
Orza, J	1966 19	188	J Mol Spectrosc	HCAPLUS
Painter, P	1982		The Theory of Vibrat	
Pomerantz, M	1992	1672	J Chem Soc Chem Comm	HCAPLUS
Pople, J	1981 15	267	Int J Quantum Chem Q	
Prasad, P	1988 160	53	Mol Cryst Liquid Cry	
Pulay, P	1979 101	2550	J Am Chem Soc	HCAPLUS
Pulay, P	1983 105	7037	J Am Chem Soc	HCAPLUS
Pulay, P	1981 74	3999	J Chem Phys	HCAPLUS
Ramirez, F	1994 15	405	J Comput Chem	HCAPLUS
Roncalli, J	1992 92	711	Chem Rev	HCAPLUS
Sauvajol, J	1990 38	1	Synth Met	HCAPLUS
Sugiyama, T	1989 28	IC323	Synth Met	HCAPLUS
Tadokoro, H	1979		Structure of Crystal	
Vardeny, Z	1987 18	183	Synth Met	HCAPLUS
Wilson, E	1995		Molecular Vibrations	
Wudl, F	1984 36	3382	J Org Chem	
Yong, C	1985 54	211	Solid State Commun	
Zerbi, G	1991	435	Conjugated Polymers	HCAPLUS
Zerbi, G	1991 94	4637	J Chem Phys	HCAPLUS

L30 ANSWER 20 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1996:687011 HCAPLUS Full-text

DN 125:312552

OREF 125:58239a,58242a

TI Rubbing process for aligning LCD orientation film

IN Oohira, Manabu; Motohashi, Naoko; Ikenoe, Yoshiaki

PA Showa Denko Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 11 pp.

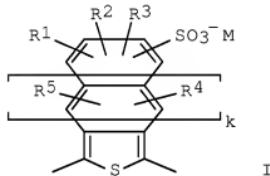
CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08211391	A	19960820	JP 1995-19467	199502 07
PRAI	JP 1995-19467		19950207		
GI					



AB The rubbing process is carried out after applying an antistatic agent containing a conjugated elec. conductive polymer on the orientation film. The conjugated elec. conductive polymer may be represented by I (R1-5 = H, C1-10 alkyl, C1-10 alkoxy, halo, SO3M-; M = H+, alkali metal ion, quaternary ammonium ion; k = 0-3). Preferably, the conjugated elec. conductive polymer may be poly(2-sulfoaniline-co-aniline) or poly(5-isothianaphthenesulfonic acid-co-isothianaphthene). The conjugated elec. conductive polymer film is removed after the rubbing process.

IT 181815-08-7 181815-09-8 181815-12-3

RL: MOA (Modifier or additive use); USES (Uses)
(conjugated elec. conductive polymer
in LCD orientation film)

RN 181815-08-7 HCPLUS

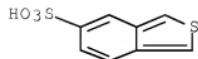
CN Benzo[c]thiophene-5-sulfonic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 181815-07-6

10593498

CMF C8 H6 O3 S2



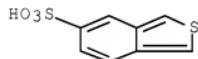
RN 181815-09-8 HCAPLUS

CN Benzo[c]thiophene-5-sulfonic acid, polymer with benzo[c]thiophene
(9CI) (CA INDEX NAME)

CM 1

CRN 181815-07-6

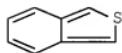
CMF C8 H6 O3 S2



CM 2

CRN 270-82-6

CMF C8 H6 S



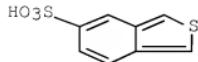
RN 181815-12-3 HCAPLUS

CN Benzo[c]thiophene-5-sulfonic acid, ammonium salt, homopolymer (9CI)
(CA INDEX NAME)

CM 1

10593498

CRN 181815-11-2
CMF C8 H6 O3 S2 . H3 N



● NH3

IT 183210-05-1

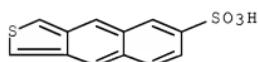
RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
(conjugated elec. conductive polymer
in LCD orientation film)

RN 183210-05-1 HCPLUS

CN Naphtho[2,3-c]thiophene-6-sulfonic acid, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 183210-04-0
CMF C12 H8 O3 S2



IC ICM G02F001-1337
ICS C08G061-12

CC 74-13 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

Section cross-reference(s): 38, 76

IT 135899-67-1, Poly(3-(3'-thienyl)propanesulfonic acid) 146526-57-0
181815-08-7 181815-09-8 181815-12-3

RL: MOA (Modifier or additive use); USES (Uses)
(conjugated elec. conductive polymer
in LCD orientation film)

IT 133210-05-1

RL: MOA (Modifier or additive use); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)
 (conjugated elec. conductive polymer
 in LCD orientation film)

L30 ANSWER 21 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN

AN 1996:571835 HCPLUS Full-text

DN 125:208292

OREF 125:38725a,38728a

TI Antistatic coating composition and plastic film bearing antistatic layer for silver halide photographic material

IN Tachibana, Noriki; Okamura, Shinichi; Morita, Seiwa; Kotani, Chiaki

PA Konishirotku Photo Ind, Japan

SO Jpn. Kokai Tokyo Koho, 64 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 08160568	A	19960621	JP 1994-302273	199412 06

PRAI JP 1994-302273 19941206

AB The title coating process composition is an aqueous dispersion or solution containing a π -electron conductive polymer and an acceptor dopant, which contains Ca ion concentration \leq 500 ppm. The π -electron conductive polymer, and the plastic film bearing the antistatic layer as support for Ag halide photog. material are also claimed.

IT 91201-85-3 133184-17-5 162370-00-5
181226-88-0

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (electron conductive polymer for
 antistatic coating and photog. film)

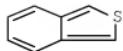
RN 91201-85-3 HCPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

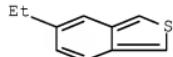
CM 1

CRN 270-82-6

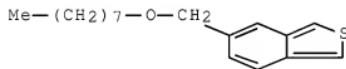
CMF C8 H6 S



RN 133184-17-5 HCPLUS
 CN Benzo[c]thiophene, 5-ethyl-, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 133184-16-4
 CMF C10 H10 S

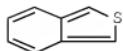


RN 162370-00-5 HCPLUS
 CN Benzo[c]thiophene, 5-[(octyloxy)methyl]-, homopolymer (9CI) (CA INDEX NAME)
 CM 1
 CRN 162369-99-5
 CMF C17 H24 O S

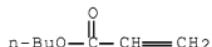


RN 181226-88-0 HCPLUS
 CN 2-Propenoic acid, butyl ester, polymer with benzo[c]thiophene, graft (9CI) (CA INDEX NAME)
 CM 1
 CRN 270-82-6

CMF C8 H6 S



CM 2

CRN 141-32-2
CMF C7 H12 O2

IC ICM G03C001-85
ICS G03C001-89
CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
IT 25067-54-3 25233-34-5 25988-40-3 27082-18-4 30604-81-0
30639-56-6 33411-63-1 89761-73-9 91201-85-3
104934-53-4 105935-08-8 110847-38-6 122721-92-0
133184-17-5 137539-66-3 162370-00-5
181226-79-9 181226-81-3 181226-82-4 181226-84-6 181226-85-7
181226-86-8 181226-87-9 181226-88-0
RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
(electron conductive polymer for antistatic coating and photog. film)
L30 ANSWER 22 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN
AN 1996:229032 HCAPLUS Full-text
DN 124:304251
OREF 124:56111a,56114a
TI Electrically conductive polymeric compositions
IN Hedges, Winston L.
PA Hexcel Corp., USA
SO U.S., 12 pp., Cont.-in-part of U.S. Ser. No. 930,738.

CODEN: USXXAM

DT Patent

LA English

FAN.CNT 3

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	US 5498372	A	19960312	US 1994-195399	199402 14
	US 6132645	A	20001017	US 1992-930738	199208 14

PRAI US 1992-930738 A2 19920814
 US 1992-972574 A2 19921106

OS MARPAT 124:304251

AB Elec. conductive polymeric compns. suitable for fabricating devices for safely transporting volatile chems. and fuels are disclosed. The elec. conductive polymeric compns. include ≥ 1 nonconductive matrix polymer and an elec. conductive filler material incorporated in the matrix polymer in an amount sufficient to provide the conductive polymeric composition with an elec. conductivity of $\geq 10-10$ S/cm. The elec. conductive filler material is intrinsically conductive polymer-coated C black particles. The coating of intrinsically elec. conductive polymer provides a protective shield against loss of particle conductivity, contributes to the overall conductivity of the filler material, and enhances the mech. properties of the filled matrix polymer.

IT 91201-85-3, Polyisothianaphthene

RL: TEM (Technical or engineered material use); USES (Uses)
 (elec. conductive polymeric compns.
 containing carbon black particles coated with)

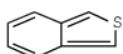
RN 91201-85-3 HCPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6

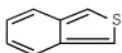
CMF C8 H6 S



IC ICM H01B001-12
 ICS H01B001-24
 INCL 252511000
 CC 76-2 (Electric Phenomena)
 Section cross-reference(s): 38
 IT 9033-83-4, Polyphenylene 25067-54-3, Polyfuran 25067-58-7,
 Polyacetylene 25233-30-1, Polyaniline 25233-34-5, Polythiophene
 30604-81-0, Polypyrole 82451-56-7, Polyazulene 91201-85-3
 , Polyisothianaphthene 96638-49-2, Polyphenylenevinylene
 RL: TEM (Technical or engineered material use); USES (Uses)
 (elec. conductive polymeric compns.
 containing carbon black particles coated with)

L30 ANSWER 23 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN
 AN 1996:16256 HCPLUS Full-text
 DN 124:57318
 OREF 124:10845a,10848a
 TI Quantum mechanical study of the vibrational spectrum-structure
 relationship of conjugated conducting polymers
 AU Cuff, Lilee
 CS Georgetown Univ., Washington, DC, USA
 SO (1995) 192 pp. Avail.: Univ. Microfilms Int., Order No. DA9534195
 From: Diss. Abstr. Int., B 1995, 56(6), 3214
 DT Dissertation
 LA English
 AB Unavailable
 IT 91201-85-3, Poly(benzo[c]thiophene)
 RL: PRP (Properties)
 (quantum mech. study of vibrational spectrum-structure
 relationship of conjugated conducting polymers
)
 RN 91201-85-3 HCPLUS
 CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1
 CRN 270-82-6
 CMF C8 H6 S



CC 36-5 (Physical Properties of Synthetic High Polymers)
 Section cross-reference(s): 76

IT 25190-62-9, Poly(p-phenylene) 25233-34-5, Polythiophene
 91201-85-3, Poly(benzo[c]thiophene) 125541-34-6

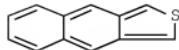
RL: PRP (Properties)
 (quantum mech. study of vibrational spectrum-structure
 relationship of conjugated conducting polymers
)

L30 ANSWER 24 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN
 AN 1996:15033 HCPLUS Full-text
 DN 124:57339
 OREF 124:10849a,10852a
 TI Theoretical tailoring of electrically conducting polymers: some new
 results
 AU Bakhshi, A. K.
 CS Dep. Chem., Panjab University, Chandigarh, 160 014, India
 SO Materials Science & Engineering, C: Biomimetic Materials, Sensors
 and Systems (1995), C3(3-4), 249-55
 CODEN: MSCEEE; ISSN: 0928-4931
 PB Elsevier
 DT Journal
 LA English
 AB Methods for design of conducting polymers, including substitution,
 ladder structure formation, topol. methods and polymeric superlattice
 formation are outlined. Using these routes, the electronic structure
 and conduction of polythiazoles and the nitrogen- and oxygen-
 containing analogs of poly(isonaphthothiophene) (PINTP) were
 determined, on the basis of ab initio Hartree-Fock crystal orbital
 calcns. Calculated data show that the simultaneous presence of
 nitrogen and sulfur within a single ring in polythiazoles makes the
 latter less conducting than polythiophene. In the case of nitrogen-
 and oxygen-containing analogs of PINTP, results predict the nitrogen
 analog poly(isonaphthopyrrole) (PINPY) to be less conducting, and the
 oxygen-containing analog poly(isonaphthofuran) (PINFU) to be more
 conducting than PINTP in the intrinsic state.

IT 107949-39-3, Poly(isonaphthothiophene)
 RL: PRP (Properties)
 (Hartree-Fock orbital calcn. of electronic structure and
 conduction of isonaphthothiophene analog conducting
 polymers)

RN 107949-39-3 HCPLUS
 CN Naphtho[2,3-c]thiophene, homopolymer (9CI) (CA INDEX NAME)

CRN 268-55-3
CMF C12 H8 S



CC 36-5 (Physical Properties of Synthetic High Polymers)
Section cross-reference(s): 76

IT 51325-08-7, Poly(2,5-thiazolediyl) 107949-39-3,
Poly(isonaphthothiophene) 121718-43-2, Poly(isonaphthopyrrole)
172518-51-3, Poly(isonaphthofuran)

RL: PRP (Properties)
(Hartree-Fock orbital calcn. of electronic structure and
conduction of isonaphthothiophene analog conducting
polymers)

L30 ANSWER 25 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN
AN 1995:849559 HCPLUS Full-text
DN 123:342807
OREF 123:61507a,61510a
TI Electrically conducting polymer molding compositions or film-forming
compositions
IN Shimizu, Takeo; Kitano, Masakazu
PA Unitika Ltd, Japan
SO Jpn. Kokai Tokyo Koho, 7 pp.
CODEN: JKXXAF
DT Patent
LA Japanese
FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07188399	A	19950725	JP 1993-331438	199312 27

PRAI JP 1993-331438 19931227

AB The title compns. contain moldable or film-formable polymers, and 1-
50% monomers capable of forming elec. conducting polymers. Thus,
poly(Me methacrylate) was mixed with 10% benzo[c]thiophene, spin-
coated on glass, covered with a photo mask, and irradiated by UV to
give a patterned product with conductivity $2 + 10^{-4}$ S/cm.

IT 91201-85-3, Benzo[c]thiophene homopolymer

107949-39-3, Naphtho[2,3-c]thiophene homopolymer
 121311-73-7 129701-96-8, Naphtho[1,2-c]thiophene
 homopolymer 171243-55-8 171243-56-9

RL: TEM (Technical or engineered material use); USES (Uses)
 (elec. conducting polymer molding
 compns. and films)

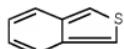
RN 91201-85-3 HCPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6

CMF C8 H6 S



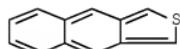
RN 107949-39-3 HCPLUS

CN Naphtho[2,3-c]thiophene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 268-55-3

CMF C12 H8 S



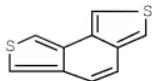
RN 121311-73-7 HCPLUS

CN Benzo[1,2-c:3,4-c']dithiophene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 23062-31-9

CMF C10 H6 S2



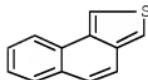
RN 129701-96-8 HCPLUS

CN Naphtho[1,2-c]thiophene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 232-81-5

CMF C12 H8 S



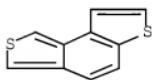
RN 171248-55-8 HCPLUS

CN Benzo[1,2-b:3,4-c']dithiophene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 70259-52-8

CMF C10 H6 S2

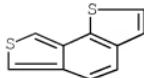


RN 171248-56-9 HCPLUS

CN Benzo[2,1-b:3,4-c']dithiophene, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 27618-78-6
 CMF C10 H6 S2



IC ICM C08G061-12
 ICS H01B001-12
 CC 38-3 (Plastics Fabrication and Uses)
 Section cross-reference(s): 37, 76
 IT 9011-14-7, Poly(methyl methacrylate) 91201-85-3,
 Benzo[c]thiophene homopolymer 94479-77-3 98507-51-8
 106070-61-5 107949-39-3, Naphtho[2,3-c]thiophene
 homopolymer 117533-13-8 120496-10-8 121311-72-6
 121311-73-7 129701-96-8, Naphtho[1,2-c]thiophene
 homopolymer 135798-61-7 171248-54-7 171248-55-8
 171248-56-9
 RL: TEM (Technical or engineered material use); USES (Uses)
 (elec. conducting polymer molding
 compns. and films)

L30 ANSWER 26 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN

AN 1995:726079 HCPLUS Full-text

DN 123:113187

OREF 123:20228h,20229a

TI Novel electrically conductive polymer and its manufacture
 IN Kato, Junya; Saida, Yoshihiro; Ikenoe, Yoshiaki; Ichikawa, Reiko
 PA Showa Denko K. K., Japan
 SO Jpn. Kokai Tokyo Koho, 18 pp.
 CODEN: JKXXAF

DT Patent

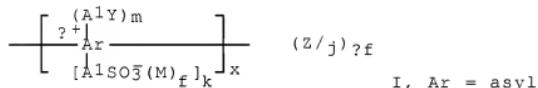
LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 07048437	A	19950221	JP 1994-122738	19940603
	JP 3413958	B2	20030609		
	US 5637652	A	19970610	US 1994-254691	

JP 2003137981	A	20030514	JP 2002-321744	199406 06
JP 3953939	B2	20070808		200211 05
JP 2007077401	A	20070329	JP 2006-294924	200610 30
PRAI JP 1993-134978	A	19930604		
JP 1994-122738	A3	19940603		
JP 2002-321744	A3	20021105		

GI



AB The title elec. conductive polymer contains structural repeating unit I (Φ = specified divalent ring; A^1 = single bond or divalent organic group; $Y = \text{SO}_2\text{NR}_1\text{R}_2, \text{SO}_3\text{R}_3, \text{SO}_2\text{SR}_4$ (R_1-4 = specified organic group); M = cation; $f = 0, 1$; Z = anion; $j = 1, 2$; $\delta = 0-1$). Manufacture of the above polymer is also claimed. The invention polymer is soluble in organic solvents and water and shows superior processability, high conductivity, and thermal and mech. stability.

IT 152377-26-9DP, reaction product with alkyl amine or aromatic amine, optionally partially desulfonated
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of elec. conductive polymers
)

RN 152377-26-9 HCAPLUS

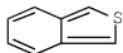
CN Benzo[c]thiophenesulfonic acid, homopolymer (CA INDEX NAME)

CM 1

CRN 152377-25-8

CMF C8 H6 O3 S2

CCI IDS

D1—SO₃H

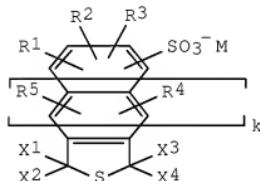
IC ICM C08G061-12
 ICS C08G079-00; H01B001-12
 CC 35-5 (Chemistry of Synthetic High Polymers)
 IT 25233-30-1DP, Polyaniline, sulfonic acid-substituted, reaction product with n-decylamine 125714-86-5DP, reaction product with n-propylamine 135899-67-1DP, reaction product with alkylamine, optionally partially desulfonated 141182-90-3DP, reaction product with n-amylamine 152313-50-3DP, acidified, reaction product with n-octylamine 152377-26-9DP, reaction product with alkyl amine or aromatic amine, optionally partially desulfonated 166032-90-2DP, reaction product with n-octylamine 166032-92-4DP, reaction product with n-octylamine
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of elec. conductive polymers
)

L30 ANSWER 27 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN
 AN 1995:705298 HCPLUS Full-text
 DN 123:84317
 OREF 123:15107a,15110a
 TI Manufacture of electrically conductive polymers
 IN Saida, Yoshihiro; Ikenoe, Yoshiaki; Ichikawa, Reiko
 PA Showa Denko K. K., Japan
 SO Jpn. Kokai Tokkyo Koho, 14 pp.
 CODEN: JKXXAF
 DT Patent
 LA Japanese
 FAN.CNT 4

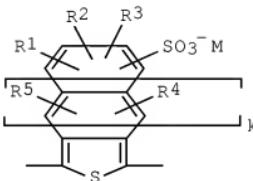
	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
-----	-----	-----	-----	-----	-----
-----	-----	-----	-----	-----	-----
PI JP 07048436	A	19950221	JP 1994-117256		199405 30

JP 3413956	B2	20030609		
JP 2003261656	A	20030919	JP 2003-25356	
				200302 03
JP 3825001	B2	20060920		
JP 2006213924	A	20060817	JP 2006-60238	
				200603 06
PRAI JP 1993-129798	A	19930531		
JP 1994-117256	A3	19940530		
JP 2003-25356	A3	20030203		

GI



I



II

AB The process comprises polymerizing a compound I ($\text{R1-R5} = \text{H, halo, NO}_2, \text{ amino, C1-20 monovalent organic group; X1-X4} = \text{H, halo; M} = \text{H, alkali metal, (substituted) cation of Group VA element; k} = 0-3$) to give a conjugated π -bond-type elec. conductive polymer containing ≥ 1 structural repeating unit II ($\text{R1-R5, M, k as above}$). The process gives sulfonic acid group-containing elec. conductive (co)polymers with stable conductivity

IT 165455-34-5DP, acidified, optionally partially desulfonated
165455-35-6DP, acidified 165455-37-8P

RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of elec. conductive polymers
)

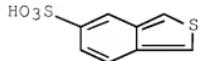
RN 165455-34-5 HCAPLUS

CN Benzo[c]thiophene-5-sulfonic acid, sodium salt, homopolymer (9CI)
(CA INDEX NAME)

CM 1

10593498

CRN 165455-33-4
CMF C8 H6 O3 S2 . Na

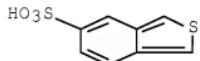


● Na

RN 165455-35-6 HCAPLUS
CN Benzo[c]thiophene-5-sulfonic acid, sodium salt, polymer with
benzo[c]thiophene (9CI) (CA INDEX NAME)

CM 1

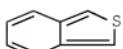
CRN 165455-33-4
CMF C8 H6 O3 S2 . Na



● Na

CM 2

CRN 270-82-6
CMF C8 H6 S



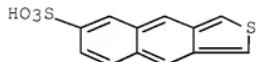
RN 165455-37-8 HCAPLUS

CN Naphtho[2,3-c]thiophene-6-sulfonic acid, ammonium salt, homopolymer
(9CI) (CA INDEX NAME)

CM 1

CRN 165455-36-7

CMF C12 H8 O3 S2 . H3 N

● NH₃

IT 165455-41-4DP, acidified 165455-43-6P

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
(preparation of elec. conductive polymers
)

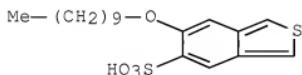
RN 165455-41-4 HCAPLUS

CN Benzo[c]thiophene-5-sulfonic acid, 6-(decyloxy)-, sodium salt,
homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 165455-40-3

CMF C18 H26 O4 S2 . Na

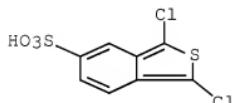


● Na

RN 165455-43-6 HCPLUS
 CN Benzo[c]thiophene-5-sulfonic acid, 1,3-dichloro-, ammonium salt,
 homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 165455-42-5
 CMF C8 H4 Cl2 O3 S2 . H3 N



● NH₃

IC ICM C08G061-12
 ICS H01B001-12
 CC 35-4 (Chemistry of Synthetic High Polymers)
 IT 165455-34-5DP, acidified, optionally partially desulfonated
 165455-35-6DP, acidified 165455-37-8P
 RL: IMF (Industrial manufacture); PRP (Properties); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of elec. conductive polymers
)
 IT 165455-41-4DP, acidified 165455-43-6P
 RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)
 (preparation of elec. conductive polymers
)

L30 ANSWER 28 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN
 AN 1995:498326 HCPLUS Full-text
 DN 122:251969
 OREF 122:45757a,45760a
 TI Antistatic silver halide photographic material
 IN Tachibana, Noriki; Morita, Seiya
 PA Konishiroku Photo Ind, Japan
 SO Jpn. Kokai Tokkyo Koho, 47 pp.
 CODEN: JKXXAF

DT Patent
 LA Japanese
 FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06301154	A	19941028	JP 1993-87395	199304 14

PRAI JP 1993-87395 19930414

AB In the title Ag halide photog. material utilizing ≥ 1 antistatic layers containing an electronically conductive polymer, the above polymer is crosslinked with a crosslinking agent selected from an epoxy-, aldehyde-, reactive ethylene-, ethyleneimine-, reactive ester-type material.

IT 91201-85-3 133150-75-1 133184-17-5
 162370-00-5

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)
 (electronically conductive polymer;
 antistatic photog. film using)

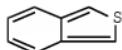
RN 91201-85-3 HCPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6

CMF C8 H6 S



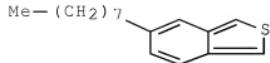
RN 133150-75-1 HCPLUS

CN Benzo[c]thiophene, 5-octyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 133150-74-0

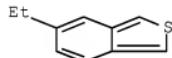
CMF C16 H22 S



RN 133184-17-5 HCPLUS
 CN Benzo[c]thiophene, 5-ethyl-, homopolymer (9CI) (CA INDEX NAME)

CM 1

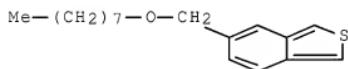
CRN 133184-16-4
 CMF C10 H10 S



RN 162370-00-5 HCPLUS
 CN Benzo[c]thiophene, 5-[(octyloxy)methyl]-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 162369-99-5
 CMF C17 H24 O S



IC ICM G03C001-89
 ICS G03C001-04; G03C001-30
 CC 74-2 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
 IT 25233-30-1 25233-34-5 25265-93-4 25988-40-3 30604-81-0
 91201-85-3 95831-23-5 110847-38-6 132670-08-7
 132910-05-5 133150-75-1 133184-17-5

137539-66-3 162369-94-0 162369-96-2 162369-98-4
 162370-00-5 162370-01-6

RL: DEV (Device component use); TEM (Technical or engineered material use); USES (Uses)

(electronically conductive polymer;
 antistatic photog. film using)

L30 ANSWER 29 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN

AN 1995:446542 HCPLUS Full-text

DN 122:214911

OREF 122:39305a,39308a

TI Manufacture of electric conductive polymers

IN Saida, Yoshihiro; Ichikawa, Reiko; Kato, Junya; Ikenoe, Yoshiaki

PA Showa Denko Kk, Japan

SO Jpn. Kokai Tokkyo Koho, 14 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 06256516	A	19940913	JP 1993-73021	19930308
	JP 3149290	B2	20010326		
	JP 2001187822	A	20010710	JP 2000-359053	20001127
	JP 3310267	B2	20020805		

PRAI JP 1993-73021 A3 19930308

AB Elec. conductive polymers are manufactured by treating benzothiophene polymers with sulfonating agents.

Poly(1,3-dihydrobenzothiophene-1,3-diyl) was treated with fuming sulfuric acid to provide a elec. conductive polymer. Elec. conductive material can also be obtained by treating a polymer blend containing benzothiophene polymers and other polymers, such as polyethylene, with sulfonating agents.

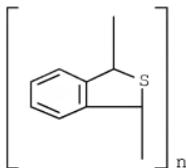
IT 91201-86-4DP, reaction products with sulfuric acid

RL: IMF (Industrial manufacture); TEM (Technical or engineered material use); PREP (Preparation); USES (Uses)

(manufacture of elec. conductive polymers
)

RN 91201-86-4 HCPLUS

CN Poly(1,3-dihydrobenzo[c]thiophene-1,3-diyl) (9CI) (CA INDEX NAME)



IC ICM C08G075-00
 ICS C08L057-06; C09K003-16; H01B001-12
 CC 35-8 (Chemistry of Synthetic High Polymers)
 Section cross-reference(s): 76
 IT 7664-93-9DP, Sulfuric acid, reaction products with
 polydihydroisothianaphthenylenes 91201-86-4DP, reaction
 products with sulfuric acid 133881-09-1DP, reaction products with sulfuric acid
 161937-24-2DP, reaction products with sulfuric acid
 RL: IMF (Industrial manufacture); TEM (Technical or engineered
 material use); PREP (Preparation); USES (Uses)
 (manufacture of elec. conductive polymers
)

L30 ANSWER 30 OF 33 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1994:568301 HCAPLUS Full-text

DN 121:168301

OREF 121:30293a,30296a

TI Electrically conductive polymeric compositions

IN Hedges, Winston Lee

PA Hexcel Corp., USA

SO PCT Int. Appl., 48 pp.
 CODEN: PIXXD2

DT Patent

LA English

FAN.CNT 3

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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-----	----	-----	-----	-----

PI WO 9411885 A1 19940526 WO 1993-US6494

199307
 08

W: CA, JP

RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT,
 SE

PRAI US 1992-972574 A 19921106

OS MARPAT 121:168301

AB The compns. are suitable for fabricating devices for safely transporting volatile chems. and fuels. The compns. include ≥ 1 matrix polymer and an elec. conductive filler material incorporated in the matrix polymer in an amount sufficient to provide the conductive polymeric composition with an elec. conductivity of $\geq 10^{-10}$ S/cm. The filler material is intrinsically conductive polymer-coated C particles. The coating of intrinsically elec. conductive polymer provides a protective shield against loss of particle conductivity and contributes to the overall conductivity of the filler material.

IT 91201-85-3, Polyisothianaphthene

RL: USES (Uses)

(elec. conductive polymer compns.
containing)

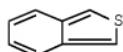
RN 91201-85-3 HCAPLUS

CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

CRN 270-82-6

CMF C8 H6 S



IC ICM H01B001-00

ICS H01B001-20; H01B001-24; H01B005-00

CC 76-2 (Electric Phenomena)

Section cross-reference(s): 38

IT 75-75-2, Methanesulfonic acid 98-11-3, Benzenesulfonic acid, uses 104-15-4, uses 7440-44-0, Carbon, uses 7664-38-2, Phosphoric acid, uses 7664-93-9, Sulfuric acid, uses 9002-84-0, Teflon 9002-86-2, Polyvinyl chloride 9002-88-4, Polyethylene 9003-07-0, Polypropylene 9003-53-6, Polystyrene 9003-55-8, Butadiene styrene copolymer 9033-83-4, Polyphenylene 24937-78-8, Polyethylene vinyl acetate 25014-41-9, Polyacrylonitrile 25067-54-3, Polyfuran 25067-58-7, Polyacetylene 25233-30-1, Polyaniline 25233-34-5, Polythiophene 30604-81-0, Polypyrrole 70191-75-2 82451-56-7, Polyazulene 91201-85-3, Polyisothianaphthene 96638-49-2, Polyphenylenevinylene 157710-50-4, Calfax 10LA40

RL: USES (Uses)
 (elec. conductive polymer compns.
 containing)

L30 ANSWER 31 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN
 AN 1989:96028 HCPLUS Full-text
 DN 110:96028

OREF 110:15889a,15892a

TI Manufacture of conductive polymers having isothianaphthene rings

IN Uotani, Nobuo; Yoshida, Haruo

PA Showa Denko K. K., Japan

SO Jpn. Kokai Tokkyo Koho, 5 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
PI	JP 63118323	A	19880523	JP 1986-262803	19861106
PRAI	JP 07039477	B	19950501	19861106	
OS	JP 1986-262803				
GI	MARPAT 110:96028				



I



II

AB Elec. conductive title polymers are prepared in high yield in a single step by oxidative polymerization of dihydroisothianaphthenes I ($R1-2 = H, Cl-5$ hydrocarbyl). Thus, 4.1 g 1,3-dihydroisothianaphthene was polymerized in N-methyl-2-pyrrolidone containing 17.0 g 2,3-dichloro-5,6-dicyano-1,4-benzoquinone at 130° for 10 h to give 3.9 g blue-black polymer II, whose IR spectrum was identical to that of II prepared by electrochem. polymerization of isothianaphthene. II had elec. conductivity $9 + 10^{-3}$ S/cm initially, and $8 + 19-1$ S/cm after doping overnight in I2 vapor.

IT 117116-78-6P

RL: PREP (Preparation)

(preparation of elec. conductive, by oxidative polymerization)

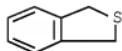
RN 117116-78-6 HCPLUS

CN Benzo[c]thiophene, 1,3-dihydro-, homopolymer (9CI) (CA INDEX NAME)

CM 1

CRN 2471-92-3

CMF C8 H8 S



IC ICM C08G061-12

ICA C07D333-72

CC 35-5 (Chemistry of Synthetic High Polymers)

IT 117116-78-6P

RL: PREP (Preparation)

(preparation of elec. conductive, by oxidative polymerization)

L30 ANSWER 32 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN

AN 1988:159870 HCPLUS Full-text

DN 108:159870

OREF 108:26101a,26104a

TI Electrically conductive polymers with improved mechanical strength and light transmittance

IN Tanaka, Shinsuke; Sada, Toshikatsu

PA Japan

SO Jpn. Kokai Tokkyo Koho, 4

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

PATENT NO.

KIND

DATE

APPLICATION NO.

DATE

PI JPN 62292855

A

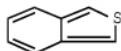
19871219

JP 1986-136154

198606

13

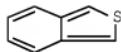
PRAI JP 1986-136154 19860613
 AB Organic polymers dispersed with polyisothianaphthalenes and dopants show excellent conductivity, mech. strength, and light transmittance. An electrochem. oxidative polymerization of isobenzothiophene on a PVC-coated Pt plate in MeCN containing Et₄NClO₄ at 5 mA/cm² gave a light-transmitting, elec. conductive polymer film.
 IT 91201-85-3, Polyisothianaphthene
 RL: USES (Uses)
 (elec. conductive polymers
 dispersed with dopants and, light-transmitting)
 RN 91201-85-3 HCPLUS
 CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)
 CM 1
 CRN 270-82-6
 CMF C8 H6 S



IC ICM C08L101-00
 ICS C08K003-16; C08K005-17; C08K005-42; C08K005-45; H01B001-12
 CC 76-2 (Electric Phenomena)
 Section cross-reference(s): 35, 38, 72, 73
 IT 91201-85-3, Polyisothianaphthene
 RL: USES (Uses)
 (elec. conductive polymers
 dispersed with dopants and, light-transmitting)
 L30 ANSWER 33 OF 33 HCPLUS COPYRIGHT 2008 ACS on STN
 AN 1987:637615 HCPLUS Full-text
 DN 107:237615
 OREF 107:38195a,38198a
 TI Molecular engineering of organic polymers with a very small intrinsic bandgap: a theoretical approach
 AU Bredas, J. L.
 CS Cent. Rech. Mater. Av., Univ. Notre-Dame de la Paix, Namur, B-5000, Belg.
 SO Journal de Chimie Physique et de Physico-Chimie Biologique (1987), 84(5), 627-32
 CODEN: JCPBAN; ISSN: 0021-7689

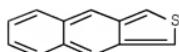
DT Journal
 LA English
 AB Theor. calcns. aimed at designing new organic polymers which would be intrinsically elec. conductors are presented. For aromatic polymers such as polythiophene, a linear relationship was established between the bandgap value and the importance of quinoid contributions to the geometry. The electronic properties of polyisothianaphthene as well as polythieno[3,4-c]thiophene, and polyisonaphthothiophene were described. The conditions leading to a very small bandgap in the latter 2 compds. were discussed.
 IT 91201-85-3 107949-39-3, Polyisonaphthothiophene
 RL: PRP (Properties)
 (bandgap of, mol. engineering of elec.
 conducting polymers in relation o)
 RN 91201-85-3 HCPLUS
 CN Benzo[c]thiophene, homopolymer (CA INDEX NAME)

CM 1

 CRN 270-82-6
 CMF C8 H6 S


RN 107949-39-3 HCPLUS
 CN Naphtho[2,3-c]thiophene, homopolymer (9CI) (CA INDEX NAME)

CM 1

 CRN 268-55-3
 CMF C12 H8 S


CC 36-2 (Physical Properties of Synthetic High Polymers)

IT Section cross-reference(s): 65, 76
 25233-34-5, Polythiophene 91201-85-3, 107349-39-3
 , Polyisonaphthothiophene 111740-85-3, Polythieno[3,4-c]thiophene
 RL: PRP (Properties)
 (bandgap of, mol. engineering of elec.
 conducting polymers in relation o)

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L29 ANSWER 1 OF 3 HCPLUS COPYRIGHT 2008 ACS on STN
 AN 2002:810015 HCPLUS Full-text
 DN 138:73639
 TI Synthesis and properties of new aromatic poly(amine-imide)s derived
 from N,N'-bis(4-aminophenyl)-N,N'-diphenyl-1,4-phenylenediamine
 AU Liou, Guey-Sheng; Hsiao, Sheng-Huei; Ishida, Mina; Kakimoto,
 Masaaki; Imai, Yoshio
 CS Department of Applied Chemistry, National Chi Nan University, Hsien,
 545, Taiwan
 SO Journal of Polymer Science, Part A: Polymer Chemistry (2002),
 40(21), 3815-3822
 CODEN: JPACEC; ISSN: 0887-624X
 PB John Wiley & Sons, Inc.
 DT Journal
 LA English
 AB A series of new triphenylamine-containing aromatic poly(amine-imide)s
 were synthesized either by a conventional 2-step process from N,N'-
 bis(4-aminophenyl)-N,N'-diphenyl-1,4-phenylenediamine with various
 aromatic tetracarboxylic dianhydrides or by the 1-step thioanhydride
 method from the diamine with aromatic tetracarboxylic
 dithioanhydrides. Obtained polymers were cast into films and
 examined on their inherent viscosity, solubility, thermal and mech.
 properties as well as morphol. In the 2-step process, the precursor
 polyamic acids obtained in the 1st stage had inherent viscosities
 between 0.71-1.86 dL/g. Except for the poly(amine-imide) from the
 pyromellitic dianhydride, all the other poly(amine-imide)s dissolve
 in N-methyl-2-pyrrolidone, and several poly(amine-imide)s also
 exhibited good solubility in other organic solvents. All the
 poly(amine-imide)s were amorphous as evidenced by x-ray
 diffractograms. These polymers could afford tough and flexible films
 with good mech. properties. They had relative high glass transition
 temps. (274-332°), 10% weight-loss temps. >560° in both N2 and air
 atmospheres, and char yields at 800° in N2 higher than 63%.
 IT 480435-51-6P
 RL: PRP (Properties); SPN (Synthetic preparation); PREP
 (Preparation)
 (preparation and properties of aromatic poly(amine-imide)s derived

from

p-bis[(aminophenyl)(phenyl)amino]benzene and tetracarboxylic dithioanhydrides)

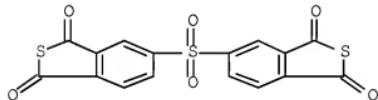
RN 480435-51-6 HCPLUS

CN Benzo[c]thiophene-1,3-dione, 5,5'-sulfonylbis-, polymer with N,N'-bis(4-aminophenyl)-N,N'-diphenyl-1,4-benzenediamine (9CI) (CA INDEX NAME)

CM 1

CRN 141680-38-8

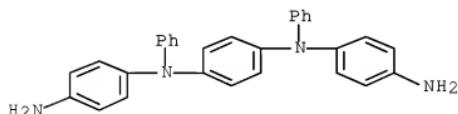
CMF C16 H6 O6 S3



CM 2

CRN 111341-76-5

CMF C30 H26 N4



CC 35-5 (Chemistry of Synthetic High Polymers)

IT 480435-48-1P 480435-49-2P 480435-50-5P 480435-51-6P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

from (preparation and properties of aromatic poly(amine-imide)s derived

p-bis[(aminophenyl)(phenyl)amino]benzene and tetracarboxylic

dithioanhydrides)

RETABLE

Referenced	Author	Year	VOL	PG	Referenced Work	
Referenced	(RAU)	(R PY)	(R VL)	(R PG)	(R WK)	File
==						
Anon		1990		227	Polyimides	
Anon		1996		309	Polyimides: Fundamen	
Eastmond, G		1999	40	469	Polymer	HCAPLUS
Hsiao, S		1998	31	7213	Macromolecules	HCAPLUS
Imai, Y		1995	7	337	High Perform Polym	HCAPLUS
Imai, Y		1972	10	2091	J Polym Sci Part A-1	HCAPLUS
Imai, Y		1984	22	2189	J Polym Sci Polym Ch	HCAPLUS
Imai, Y		1996	1	404	Polym Mater Encycl	
Imai, Y		1989	28	371	Polym Plast Technol	HCAPLUS
Imai, Y		1996	30	3	React Funct Polym	HCAPLUS
Jeong, H		1991	29	1691	J Polym Sci Part A:	HCAPLUS
Jeong, H		1991	29	39	J Polym Sci Part A:	HCAPLUS
Ko, C		2002	126	37	Synth Met	HCAPLUS
Koene, B		1998	10	2235	Chem Mater	HCAPLUS
Liou, G		1998	36	1937	J Polym Sci Part A:	HCAPLUS
Liou, G		2001	39	1786	J Polym Sci Part A:	HCAPLUS
Liou, G		2002	40	2810	J Polym Sci Part A:	HCAPLUS
Lu, J		1999	11	2501	Chem Mater	HCAPLUS
Oishi, Y		1992	30	1027	J Polym Sci Part A:	HCAPLUS
Shirota, Y		2000	111-1 387		Synth Met	HCAPLUS
Wu, A		1996	3	3	Supramol Sci	HCAPLUS

L29 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1992:409111 HCAPLUS Full-text

DN 117:9111

OREF 117:1811a,1814a

TI Soluble aromatic polyimides having high glass transition temperature

IN Imai, Yoshio; Kakimoto, Masaaki; Oishi, Yoshiyuki; Ishida, Mina

PA Mitsubishi Kasei Corp., Japan

SO Jpn. Kokai Tokkyo Koho, 7 pp.

CODEN: JKXXAF

DT Patent

LA Japanese

FAN.CNT 1

	PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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PI	JP 04011631	A	19920116	JP 1990-113707	199004 27

PRAI JP 1990-113707

19900427

AB Polyimides having intrinsic viscosity 0.1-5 dL/g as determined at 30° in H₂SO₄ are prepared from aromatic tetracarboxylic acid dianhydrides such as pyromellitic dianhydride (I), 3,4,3',4'-benzophenonetetracarboxylic dianhydride, etc. and triphenylamine. Thus, a 4,4'-diaminotriphenylamine-I copolymer was prepared, which had 10% weight loss temperature 570° in air and 600° in N.

IT 141680-39-9

RL: USES (Uses)
(films, heat-resistant and soluble)

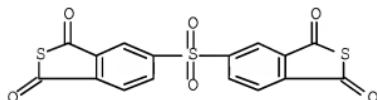
RN 141680-39-9 HCPLUS

CN Benzo[c]thiophene-1,3-dione, 5,5'-sulfonylbis-, polymer with
N-(4-aminophenyl)-N-phenyl-1,4-benzenediamine (9CI) (CA INDEX NAME)

CM 1

CRN 141680-38-8

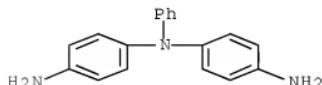
CMF C16 H6 O6 S3



CM 2

CRN 4117-90-2

CMF C18 H17 N3



IC ICM C08G073-10

CC 37-3 (Plastics Manufacture and Processing)

IT 34873-51-3, 4,4'-Diaminotriphenylamine-pyromellitic dianhydride

copolymer 36812-70-1 101060-74-6 101060-99-5 112409-97-9
 112409-98-0 112410-17-0 112410-18-1 118229-54-2 128509-00-2
 141656-78-2 141680-37-7 141680-39-9 141680-40-2
 141680-41-3 141680-42-4

RL: USES (Uses)
 (films, heat-resistant and soluble)

L29 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN

AN 1992:408606 HCAPLUS Full-text

DN 117:8606

OREF 117:1739a,1742a

TI Preparation and properties of novel soluble aromatic polyimides from 4,4'-diaminotriphenylamine and aromatic tetracarboxylic dianhydrides

AU Oishi, Yoshiyuki; Ishida, Mina; Kakimoto, Masaaki; Imai, Yoshio; Kuroasaki, Toshikazu

CS Dep. Org. Polym. Mater., Tokyo Inst. Technol., Tokyo, 152, Japan

SO Journal of Polymer Science, Part A: Polymer Chemistry (1992), 30(6), 1027-35

CODEN: JPACEC; ISSN: 0887-624X

DT Journal

LA English

AB Aromatic polyimides containing triphenylamine units were prepared by two different methods, i.e., a conventional 2-step procedure starting from 4,4'-diaminotriphenylamine (I) and aromatic tetracarboxylic dianhydrides and a 1-step thioanhydride method from I and aromatic tetracarboxylic dithioanhydrides. Both procedures yielded high-mol.-weight polyimides with inherent viscosities 0.47-1.17 dL/g. Some of these polymers were soluble in organic solvents such as AcNMe₂, N-methyl-2-pyrrolidone, m-cresol, and pyridine. All the polyimides afforded transparent, flexible, and tough films, and the color varied from pale yellow to dark red, depending markedly on the tetracarboxylic acid components. The glass transition temps. (Tg) of these polyimides were 287-331° and the 10% weight loss temps. were >520° in air. The polyimides prepared by the 1-step method exhibited better solubility in organic solvents and had somewhat lower Tg than the polymers prepared by the conventional 2-step method.

IT 141680-39-9P

RL: PRP (Properties); SPN (Synthetic preparation); PREP (Preparation)

(preparation and thermal properties of)

RN 141680-39-9 HCAPLUS

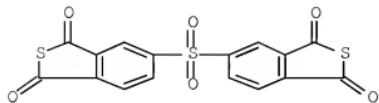
CN Benzo[c]thiophene-1,3-dione, 5,5'-sulfonylbis-, polymer with N-(4-aminophenyl)-N-phenyl-1,4-benzenediamine (9CI) (CA INDEX NAME)

CM 1

CRN 141680-38-8

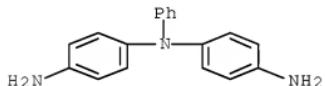
10593498

CMF C16 H6 O6 S3



CM 2

CRN 4117-90-2
CMF C18 H17 N3



CC 35-5 (Chemistry of Synthetic High Polymers)
IT 34873-51-3P 36812-70-1P 101060-74-6P 101060-99-5P
112409-97-9P 112409-98-0P 112410-17-0P 112410-18-1P
118229-54-2P 128509-00-2P 141656-78-2P 141680-37-7P
141680-39-9P 141680-40-2P 141680-41-3P 141680-42-4P
141897-63-4P
RL: PRP (Properties); SPN (Synthetic preparation); PREP
(Preparation)
(preparation and thermal properties of)

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